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A Pictorial Key to the Mosquito Genera of the World, including Subgenera of *Aedes* and *Ochlerotatus* (Diptera: Culicidae)

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Abstract A pictorial key is presented for the identification of adult mosquitoes of 2 subfamilies of Culicidae, 2 genera of Anophelinae, 38 genera of Culicinae, 22 subgenera of *Aedes* and 20 subgenera of *Ochlerotatus*. Scanning electron micrographs (SEM) demonstrate the taxonomic characters used in the key.

Key words Pictorial key, identification, subfamilies, genera, mosquitoes, subgenera of *Aedes* and *Ochlerotatus*

INTRODUCTION

A recent key for the identification of 40 mosquito genera (and subgenera of *Aedes* and *Ochlerotatus*) of the world is not available and previous keys are now out of date or of limited use. In the early 1970s, Mattingly (1971) published a comprehensive, illustrated key to the genera of mosquitoes of the world that included 32 genera. Since then, two keys to the mosquito genera of the world CD-ROM were published by Harbach and Sandlant (1997), and by Rueda et al. (1998). Each key included 38 genera.

To assist field workers in identifying mosquitoes, a pictorial key to adults (males and females) has been prepared. This key includes: (1) Family Culicidae (Key to subfamilies of Culicidae), (2) Subfamily Anophelinae (Key to genera of Anophelinae), and (3) Subfamily Culicinae (Key to genera of Culicinae including subgenera of genus *Aedes* Meigen and the genus *Ochlerotatus* Lynch Arribalzaga). An attempt was made to make the key precise yet as simple as possible. A few additional characters, indicated by a double asterisk (**), were added wherever necessary to facilitate identification.

Figs 1-9 illustrate structures of the adult head, thorax, abdomen, leg and wing that are used in the key. The terminology follows Harbach and Knight (1980, 1982), with the exception of "tarsal claws," which is retained for "ungues." The venational terms follow those of Belkin (1962).

Knight and Stone (1977), in their world catalog of mosquitoes, classified the family Culicidae into 3 subfamilies: Anophelinae, Culicinae and Toxorhynchitinae. However, based on a phylogenetic analysis of the Culicidae, Harbach and Kitching (1998) reduced the subfamily status of Toxorhynchites and treated it as a tribe of Culicinae. Thus, the family Culicidae now consists of 2 subfamilies: Anophelinae and Culicinae. Other changes at the generic level since Harbach and Kitching (1998) are as follows: (1) Based on a cladistic analysis of Sabethini (Judd 1996, 1998), *Phoniomyia* Theobald was reduced to a subgenus in

Table 1. Current classification of the family Culicidae

Subfamily	Genus	Subfamily	Genus
1. Anophelinae	1. *Anopheles* Meigen		21. *Mansonia* Blanchard
	2. *Chagasia* Cruz		22. *Maorigoeldia* Edwards
2. Culicinae	3. *Aedeomyia* Theobald		23. *Mimomyia* Theobald
	4. *Aedes* Meigen		24. *Ochlerotatus* Lynch Arribalzaga
	5. *Armigeres* Theobald		25. *Onirion* Peyton and Harbach
	6. *Ayurakitia* Thurman		26. *Opifex* Hutton
	7. *Coquillettidia* Dyar		27. *Orthopodomyia* Theobald
	8. *Culex* Linnaeus		28. *Psorophora* Robineau-Desvoidy
	9. *Culiseta* Felt		29. *Runchomyia* Theobald
	10. *Deinocerites* Theobald		30. *Sabethes* Robineau-Desvoidy
	11. *Eretmapodites* Theobald		31. *Shannoniana* Lane and Cerqueira
	12. *Ficalbia* Thoebald		32. *Topomyia* Leicester
	13. *Galindomyia* Stone and Barreto		33. *Toxorhynchites* Theobald
	14. *Haemagogus* Williston		34. *Trichoprosopon* Theobald
	15. *Heizmannia* Ludlow		35. *Tripteroides* Giles
	16. *Hodgesia* Theobald		36. *Udaya* Thurman
	17. *Isostomyia* Coquillett		37. *Uranotaenia* Lynch Arribalzaga
	18. *Johnbelkinia* Zavortink		38. *Verrallina* Theobald
	19. *Limatus* Theobald		39. *Wyeomyia* Theobald
	20. *Malaya* Leicester		40. *Zeugnomyia* Leicester

Wyeomyia Theobald, (2) *Verrallina* Theobald was restored to generic rank from a subgenus of *Aedes* (Reinert 1999), (3) Based on a phylogenetic analysis of Anophelinae (Sallum et al. 2000), *Bironella* Theobald was synonymized with *Anopheles* Meigen, (4) *Onirion* was described as a new genus of Sabethini (Harbach and Peyton 2000), (5) *Ayurakitia* Thurman was restored to generic rank from a subgenus of *Aedes* (Reinert 2000a), (6) Based on a cladistic analysis of the larval mouthparts, *Deinocerites* Theobald was reduced to subgeneric status in *Culex* Linnaeus (Navarro and Liria 2000), but for the present work, I retain the generic status of *Deinocerites*, and (7) *Ochlerotatus* Lynch Arribalzaga was elevated to generic rank from a subgenus of *Aedes* (Reinert 2000b). Thus, 40 genera are currently recognized in the family Culicidae. The 2 subfamilies with their constituent genera are indicated in Table 1.

Reinert (2000b), in his new classification of the composite genus *Aedes*, divided the genus into 2 genera: *Aedes* and *Ochlerotatus*. Reinert (2000b: 177) stated "No apparent consistent differences in adult habitus were noted for the 2 genera." He included 22 subgenera in *Aedes* and 21 subgenera in *Ochlerotatus*, but provided no definition of the 2 genera using adult morphology. As a result, we now have 2 composite genera, *Aedes* and *Ochlerotatus*. The 2 composite genera with their constituent subgenera are indicated in Table 2.

It should be noted that Reinert (2000b: 181) erroneously reported "The gonostylar claw is absent in Ae. (*Stegomyia*) *desmotes* (Giles) and...." However, Huang (1977a: 28, Fig. 14C) stated "distimere simple, elongate, 0.7 as long as basimere; with numerous short setae and a short spiniform process on subapical inner side and with several long apical setae." There should be no doubt that the gonostylar claw is present in the typical *desmotes* (Giles).

Dyar and Knob (1907: 12) described *Aedes hortator*, a new species from Trinidad. Later Dyar (1922, 1928) placed this species in the subgenus *Ochlerotatus*. Edwards (1932), in his "Genera Insectorum," divided the subgenus *Ochlerotatus* into 8 groups which he designated A through H. Edwards assigned *Aedes hortator* Dyar and Knab to his Group F (*scapularis*

Table 2. Current new classification of the two composite genera *Aedes* and *Ochlerotatus*

Genus	Subgenus	Genus	Subgenus
1. *Aedes*	1. *Aedes* Meigen	2. *Ochlerotatus*	1. *Abraedes* Zavortink
	2. *Aedimorphus* Theobald		2. *Aztecaedes* Zavortink
	3. *Alanstonea* Mattingly		3. *Chaetocruiomyia* Theobald
	4. *Albuginosus* Reinert		4. *Finlaya* Theobald
	5. *Belkinius* Reinert		5. *Geoskusea* Edwards
	6. *Bothaella* Reinert		6. *Gymnometopa* Coquillett
	7. *Cancraedes* Edwards		7. *Halaedes* Belkin
	8. *Christophersiomyia* Barraud		8. *Howardina* Theobald
	9. *Diceromyia* Theobald		9. *Kenknightia* Reinert
	10. *Edwardsaedes* Belkin		10. *Kompia* Aitken
	11. *Fredwardsius* Reinert		11. *Levua* Stone and Bohart
	12. *Huaedes* Huang		12. *Macleaya* Theobald
	13. *Indusius* Edwards		13. *Molpemyia* Theobald
	14. *Isoaedes* Reinert		14. *Mucidus* Theobald
	15. *Leptosomatomyia* Theobald		15. *Nothoskusea* Dumbleton
	16. *Lorrainea* Belkin		16. *Ochlerotatus* Lynch Arribalzaga
	17. *Neomelaniconion* Newstead		17. *Protomacleaya* Theobald
	18. *Paraedes* Edwards		*18. *Pseudoskusea* Theobald
	19. *Pseudarmigeres* Stone and Knight		19. *Rhinoskusea* Edwards
	20. *Scutomyia* Theobald		20. *Rusticoidus* Shevchenko and Prudkina
	21. *Skusea* Theobald		21. *Zavortinkius* Reinert
	22. *Stegomyia* Theobald		

*Specimens of this subgenus are not available to me. Thus, the subgenus *Pseudoskusea* is not included in this key

group). Using this key, users will find that *Ae. hortator* is not in *Ochlerotatus*. The taxonomic status of this species will be treated in a separate paper (M.A.M. Sallum, personal communication).

Cornet (1974: 175) described *Aedes cozi*, a new species from Eastern Senegal, and placed it in the subgenus *Stegomyia*. Huang (2001) indicated that *Ae. cozi* Cornet is not in *Stegomyia*. The taxonomic status of this species will be treated in a separate paper.

Wyeomyia (*Davismyia*) *petrocchiae* (Shannon and del Ponte) was transferred from the genus *Wyeomyia* to the genus *Sabethes* Robineau-Desvoidy by Harbach and Peyton (1991). However, *petrocchiae* has antepronotal lobe without a conspicuous apicomesal angle (see P. 103, 104). Based on this diagnostic character in adults, *petrocchiae* should not have been considered a species of *Sabethes*. I hereby transfer *petrocchiae* back to *Wyeomyia*.

Sabethes schnusei (Martini) has antepronotal lobe with a conspicuous apicomesal angle (see P. 103, 104). Based on this diagnostic character in adults, *schnusei* can be considered a species of the genus *Sabethes*. Harbach (1991) transferred *schnusei* from the genus *Wyeomyia* to the genus *Sabethes*. The generic placement is confirmed.

This study is based on specimens from the mosquito collections of the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM) and upon specimens that were received as gifts from the individual mentioned in the acknowledgments section. Susann G. Braden (SEM Laboratory, National Museum of Natural History, Smithsonian Institution) prepared pinned adults for scanning electron microscopy using standard procedures. Images of diagnostic characters directly taken from specimens using scanning electron microscopy are provided. Line drawings of certain diagnostic characters are given when specimens are not available using scanning electron microscopy for images. The "cut-off" date is September

2001, and changes in taxonomic status since then are not included.

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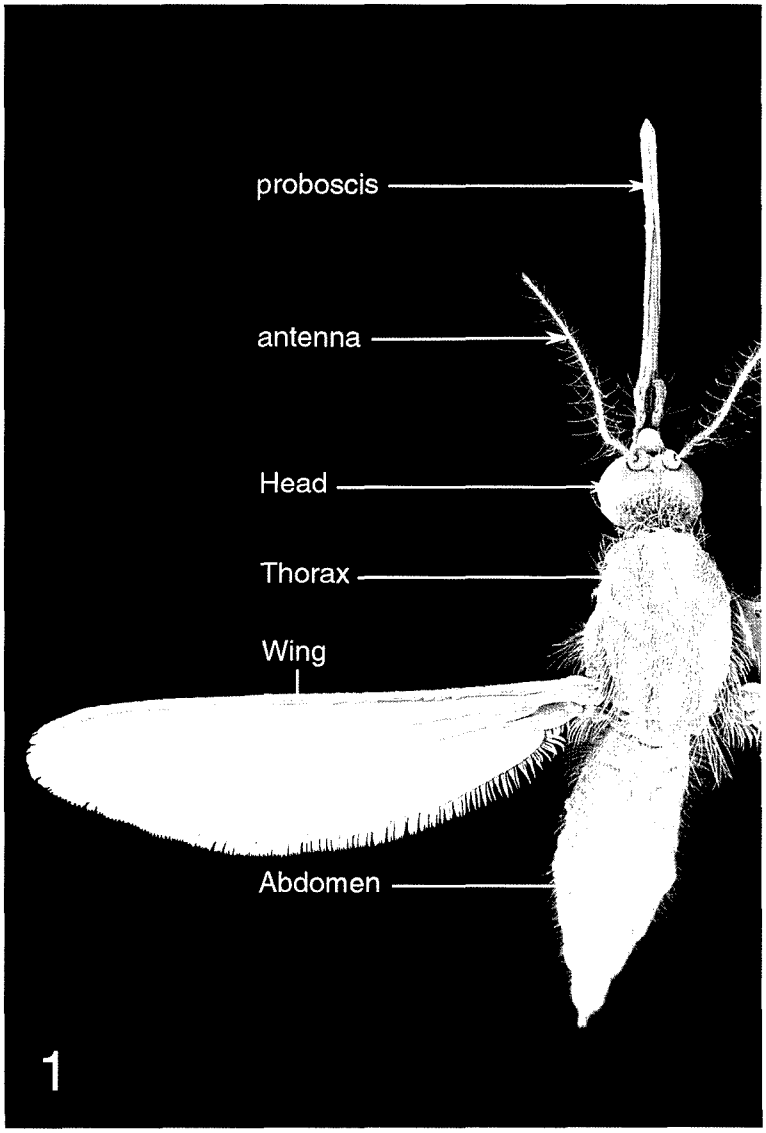
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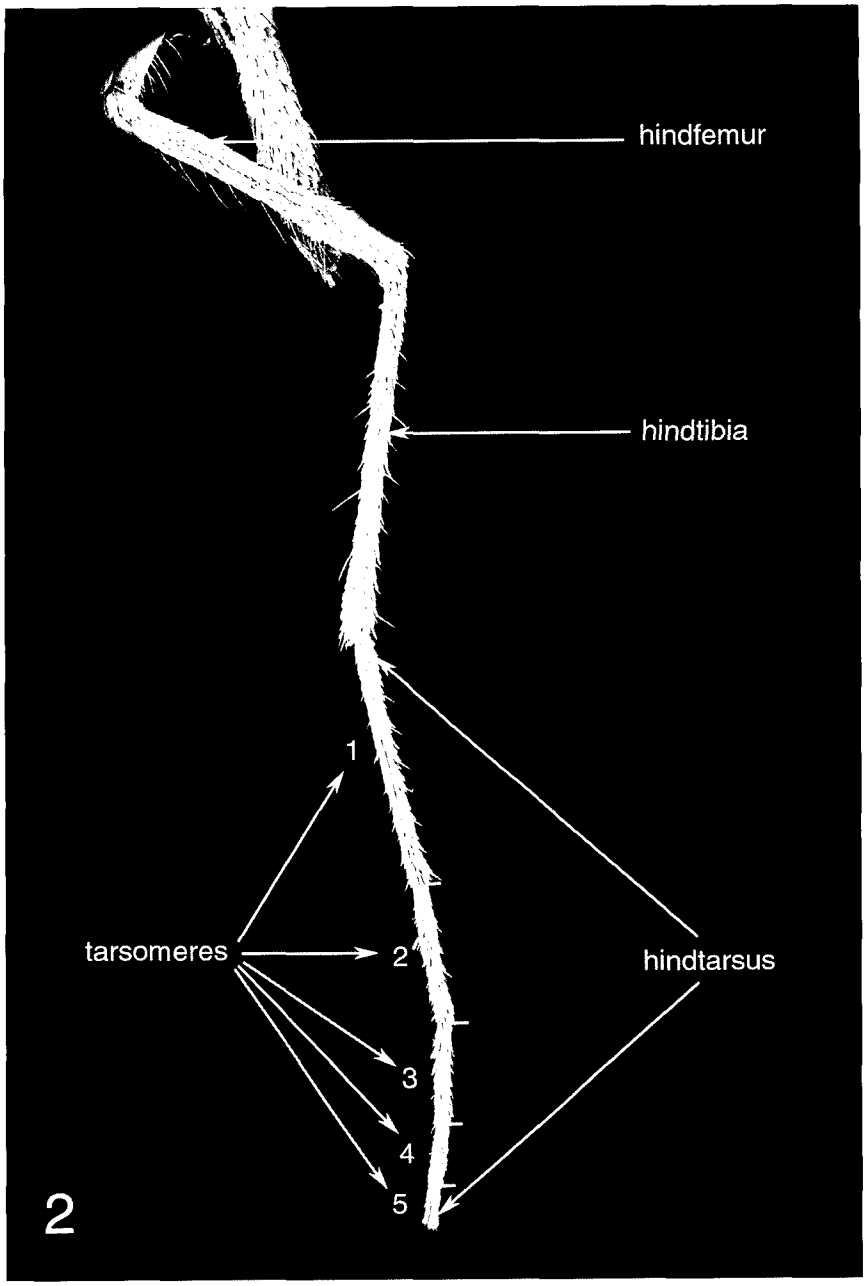
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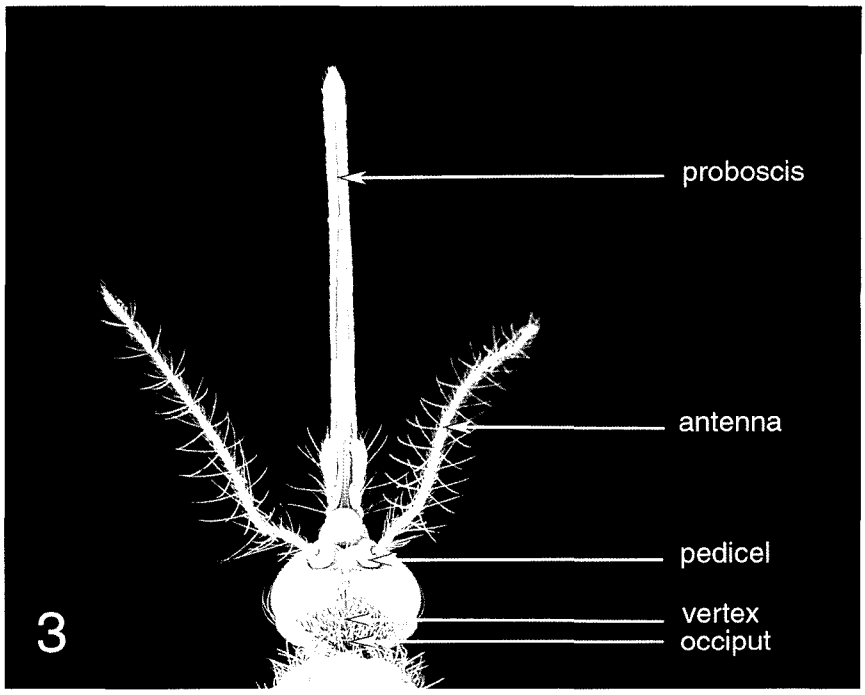
MORPHOLOGICAL FEATURES USED IN IDENTIFICATION



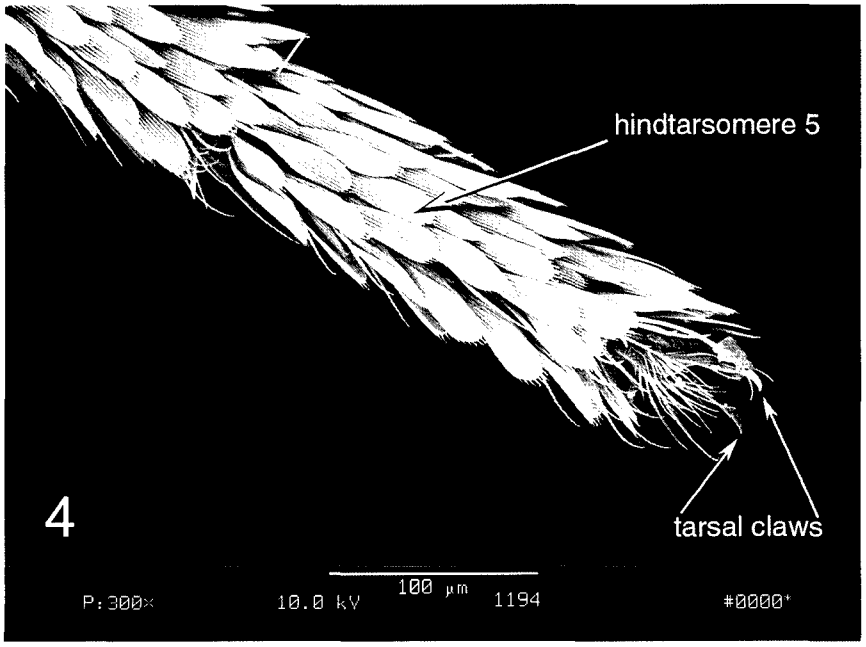
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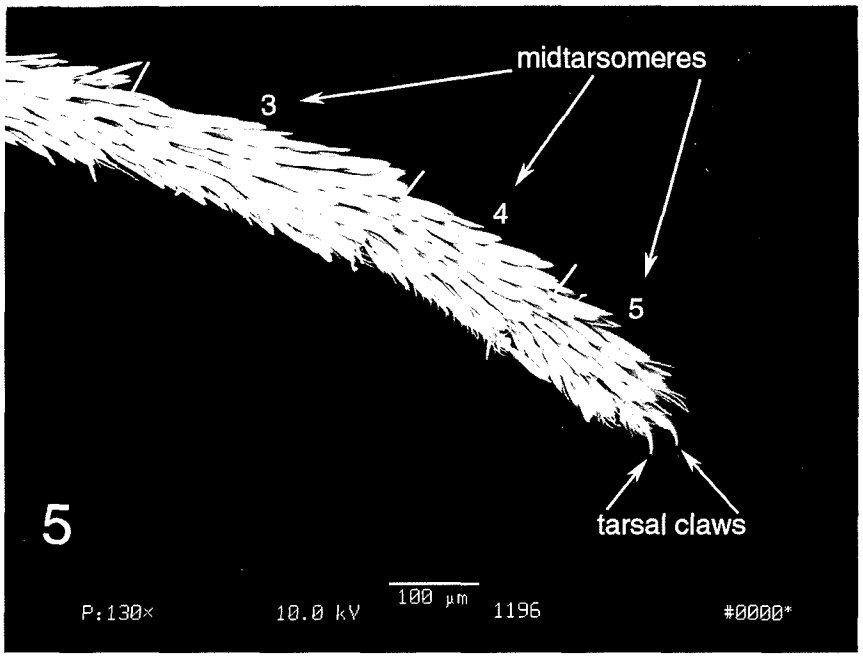
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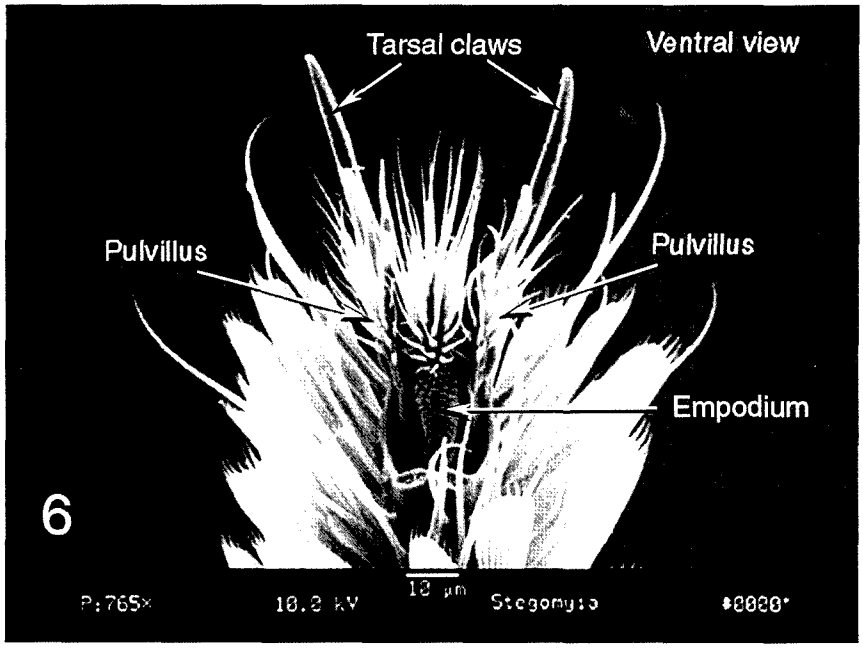
HEAD - DORSAL



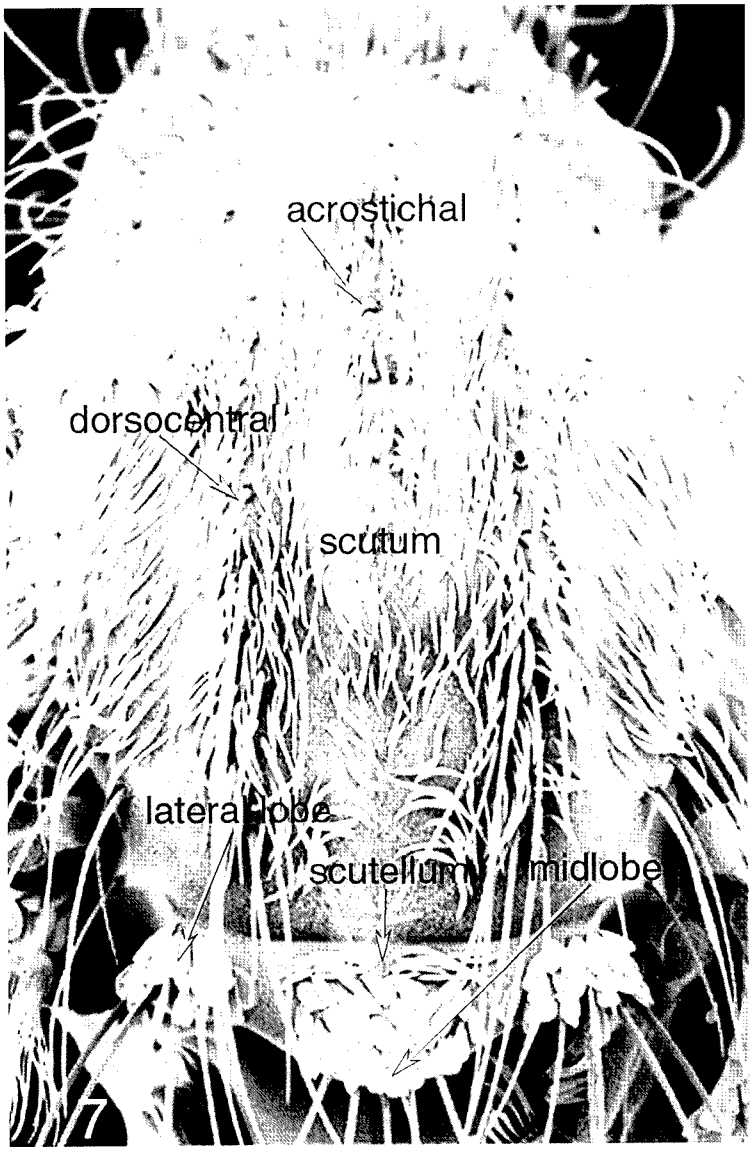
HINDTARSOMERE 5 WITH TARSAL CLAWS



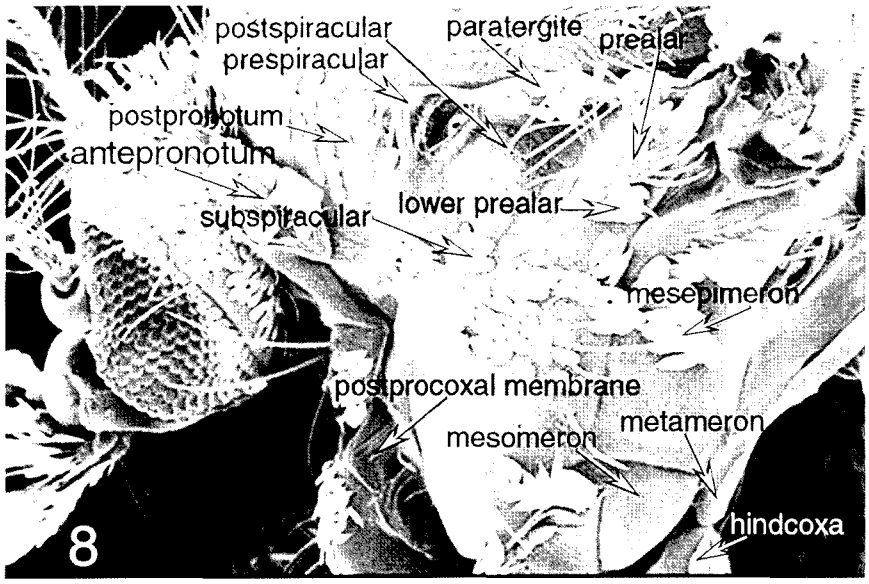
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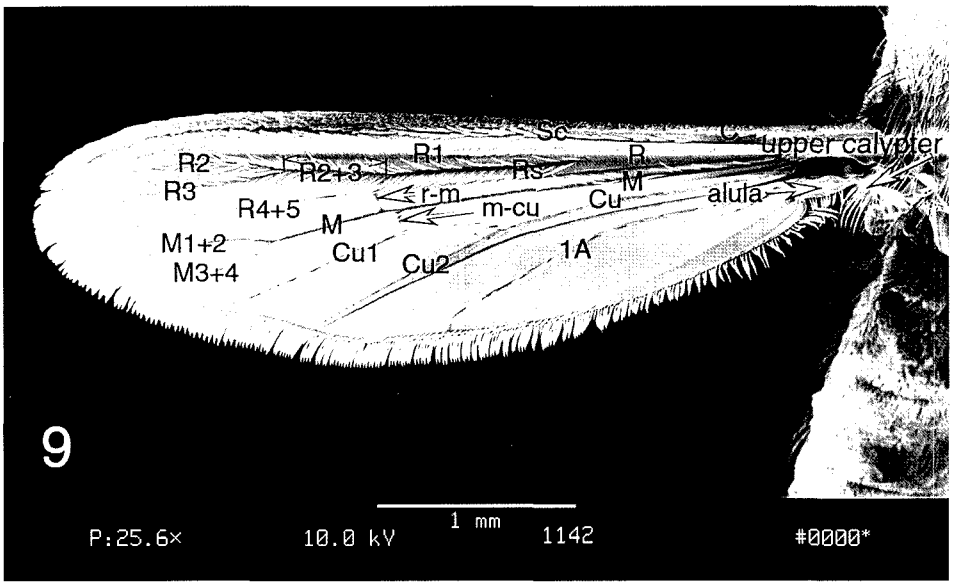
TARSAL CLAWS - VENTRAL



THORAX - DORSAL



THORAX - LATERAL

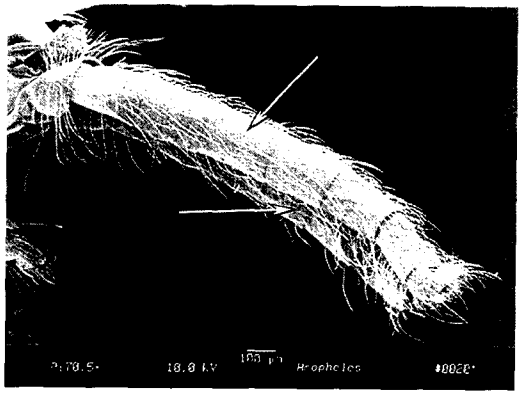


WING - DORSAL

1. Key to Subfamilies of Culicidae

ADULTS

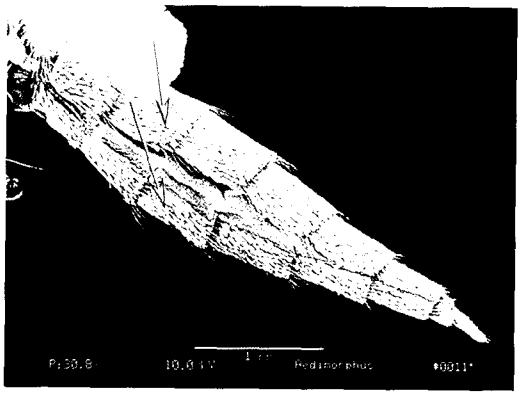
Abdomen. Completely or largely without scales



Subfamily Anophelinae

to Page 14

Abdomen. Completely or largely with dense, uniform covering of scales



Subfamily Culicinae

to Page 17

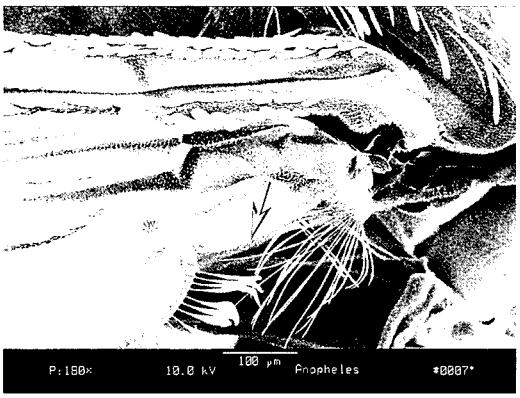
2. Key to Genera of Anophelinae

Page 14

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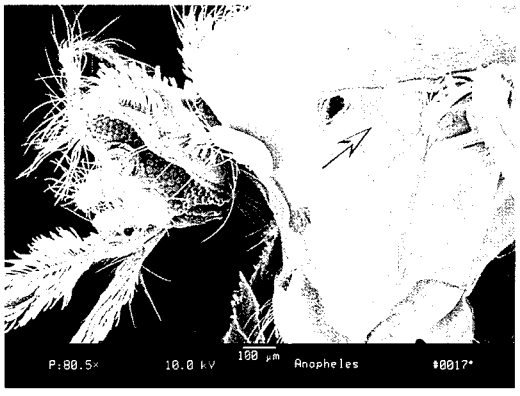
Wing. Alula without scales



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Thorax. Postspiracular setae absent



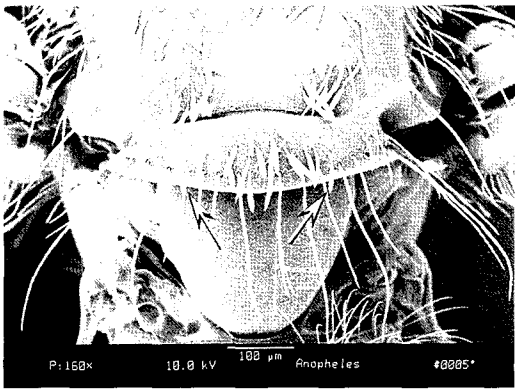
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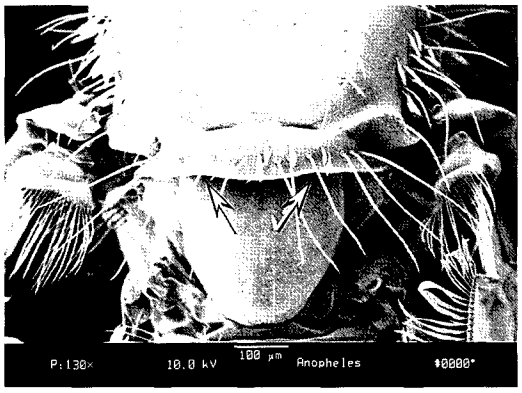
to Page 15

2. (continued)

Page 15

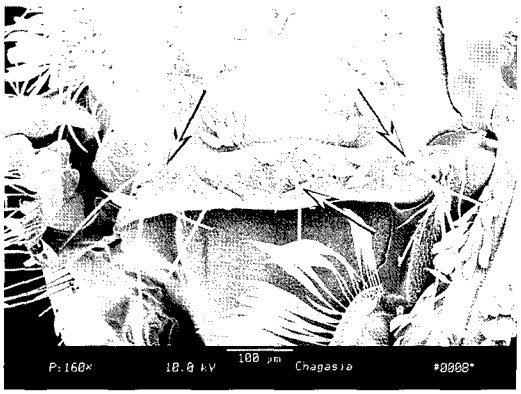
Thorax. Posterior margin of scutellum evenly rounded or slightly trilobed, with setae more or less evenly distributed





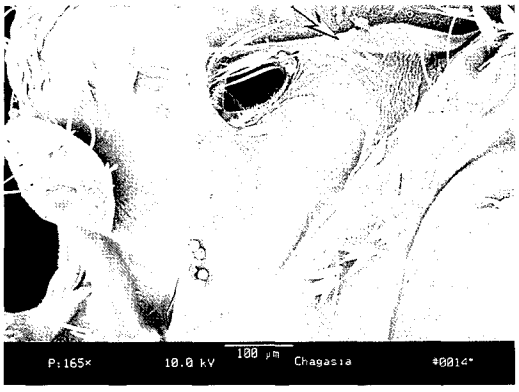
to Page 16

Thorax. Posterior margin of scutellum trilobed, with setae in 3 groups on all lobes



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Thorax. Paratergite with scales



Chagasia

2. (continued)

Page 16

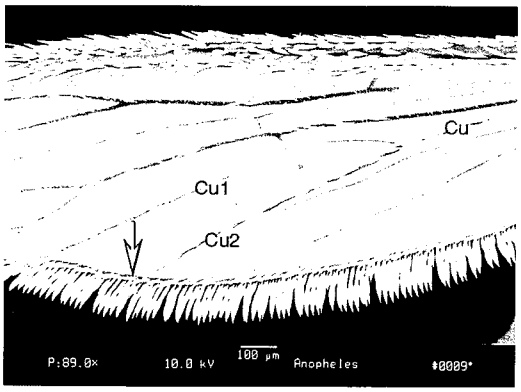
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Thorax. Paratergite without scales



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Wing. Posterior margin of wing not emarginated near tip of vein Cu2

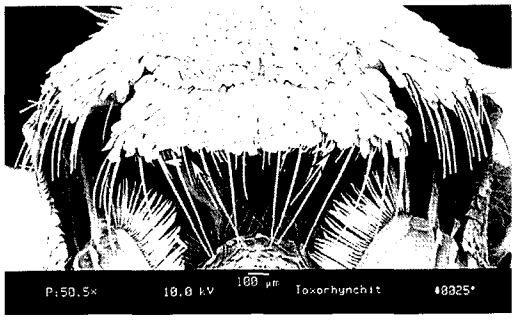


Anopheles

3. Key to Genera of Culicinae including Subgenera of *Aedes* and *Ochlerotatus*

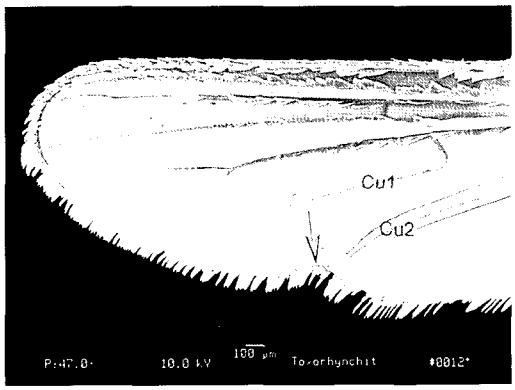
Page 17

Thorax. Posterior margin of scutellum evenly rounded, with setae evenly distributed



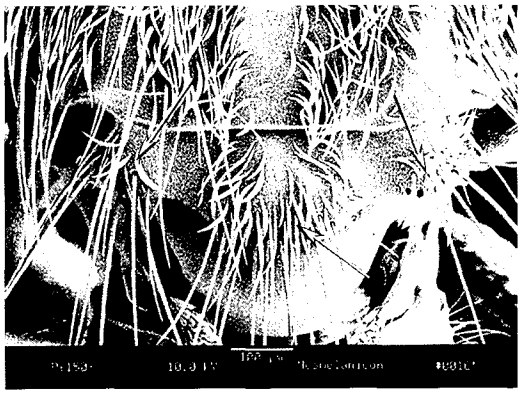
**

Wing. Posterior margin of wing emarginated near tip of vein Cu2



to Page 18

Thorax. Posterior margin of scutellum trilobed, with setae in 3 groups on all lobes



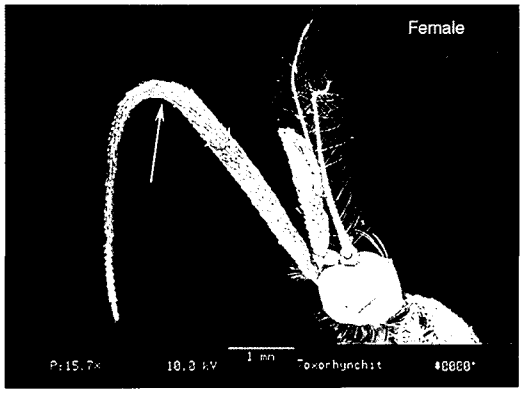
to Page 19

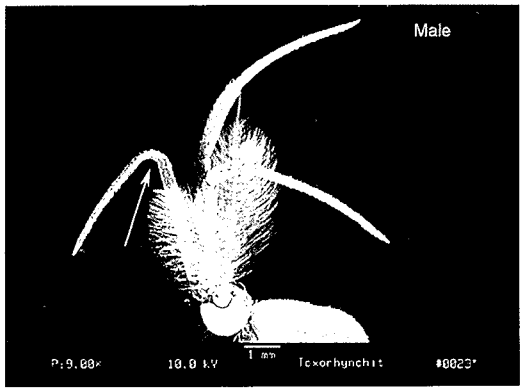
3. (continued)

Page 18

**

Head. Proboscis with apical half strongly recurved and more slender than basal half



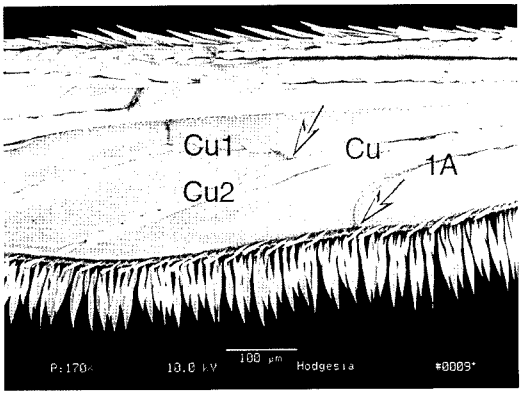


Toxorhynchites

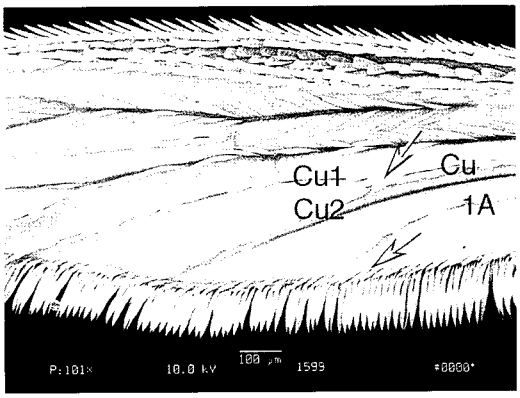
3. (continued)

Page 19

Wing. Vein 1A ending before, or near base of fork of vein Cu

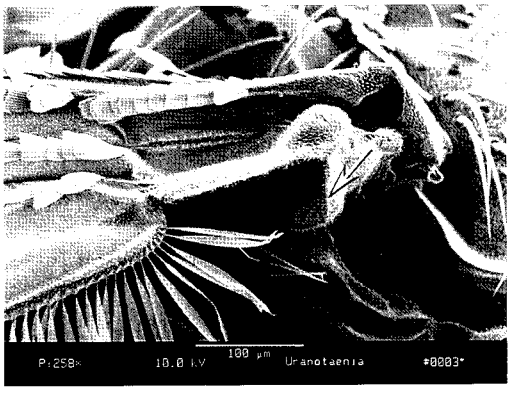


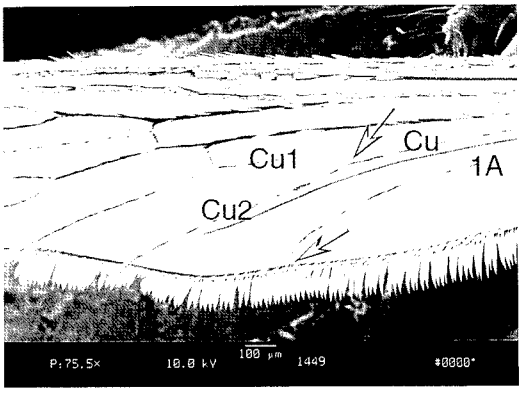
Wing. Vein 1A ending slightly, or well beyond base of fork of vein Cu



**

Wing. Upper calypter not fringed





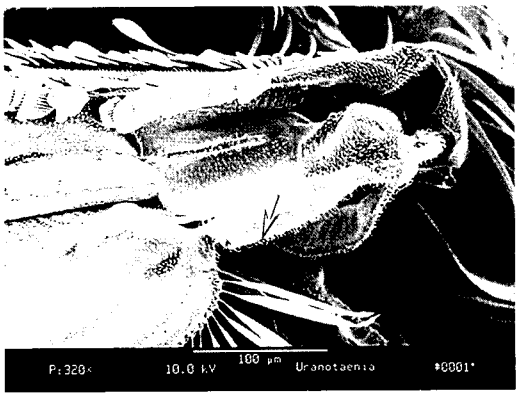
to Page 20

to Page 23

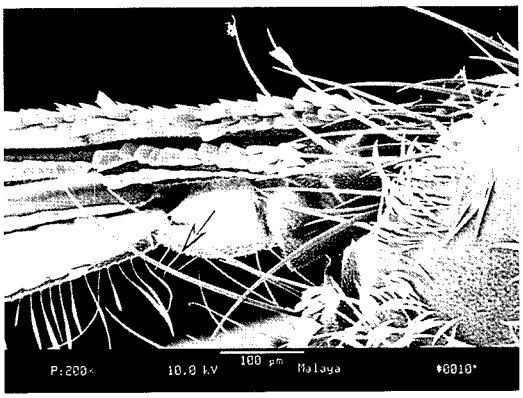
3. (continued)

Page 20

Wing. Alula without scales, or with broad decumbent scales

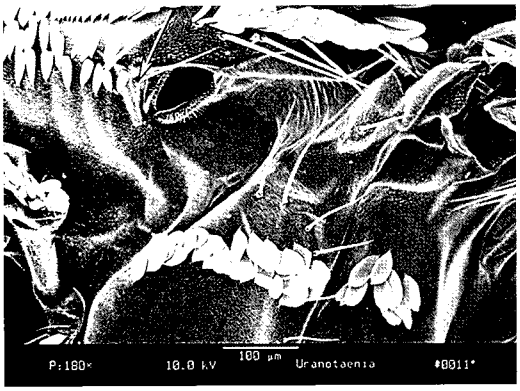


Wing. Alula with narrow fringe scales



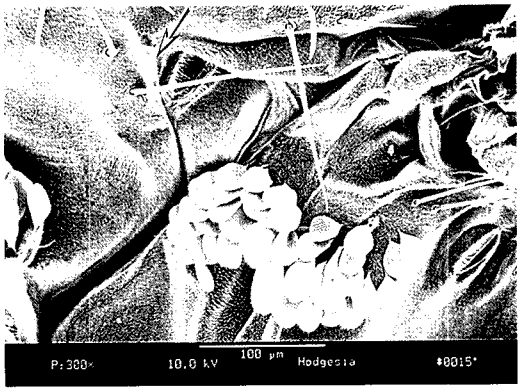
to Page 21c

Thorax. Prespiracular setae present



to Page 21a

Thorax. Prespiracular setae absent



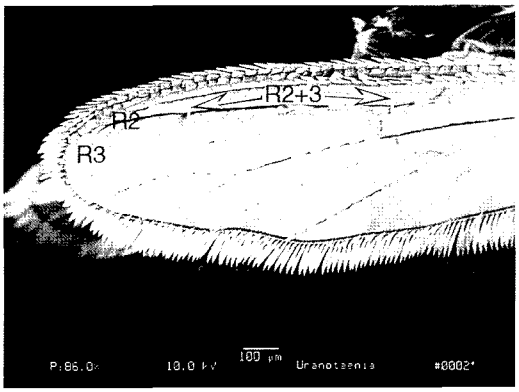
to Page 21b

3. (continued)

Page 21a

**

Wing. Vein R2+3 much longer than veins R2, R3

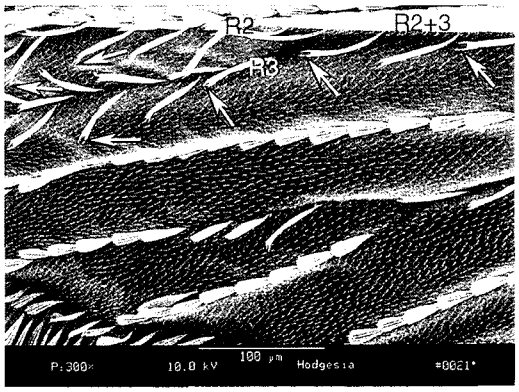


Uranotaenia

Page 21b

**

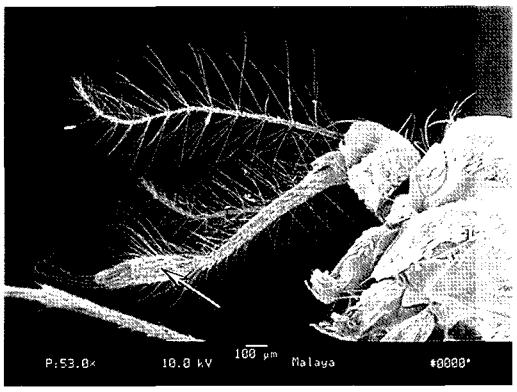
Wing. Veins R2+3, R2, R3 with outstanding scales emarginated at tip



Hodgesia

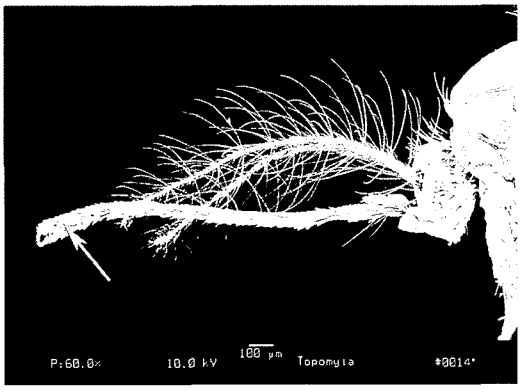
Page 21c

Head. Proboscis with apical part distinctly swollen, upturned and hairy



Malaya

Head. Proboscis sometimes with tip swollen, but not upturned and hairy



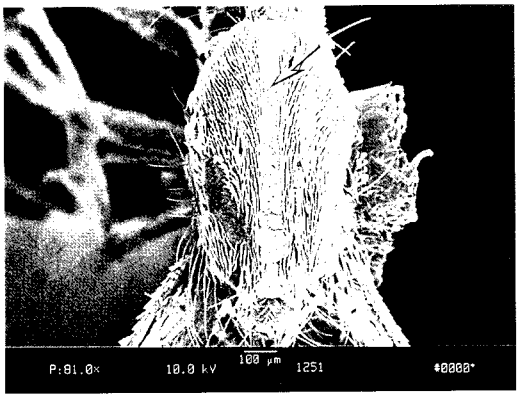
to Page 22

3. (continued)

Page 22

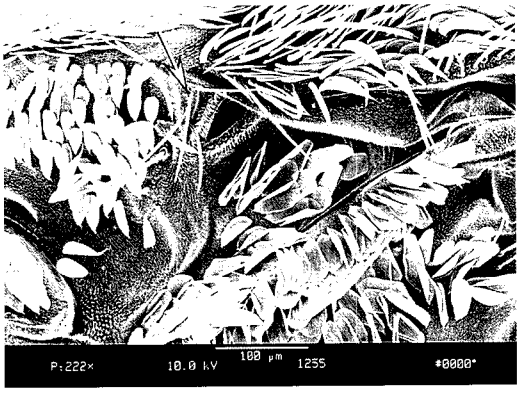
**

Thorax. Scutum with a conspicuous median longitudinal stripe of broad, flat scales



**

Thorax. Prespiracular setae present

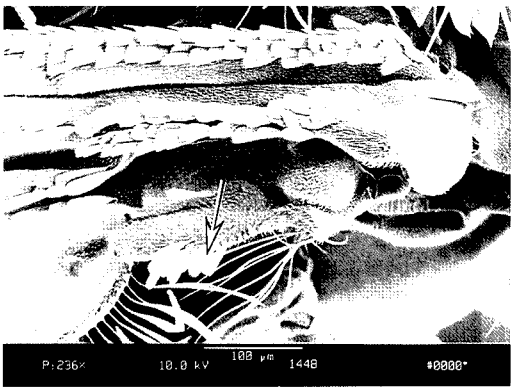


Topomyia

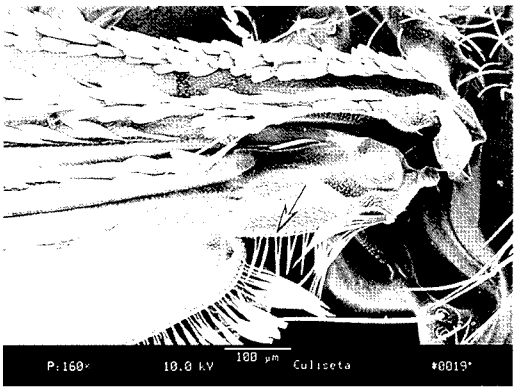
3. (continued)

Page 23

Wing. Alula without scales, or with broad decumbent scales

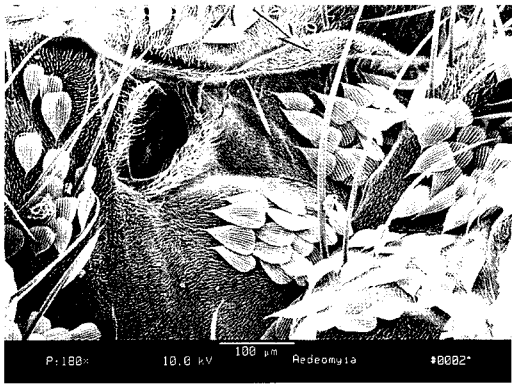


Wing. Alula with narrow fringe scales



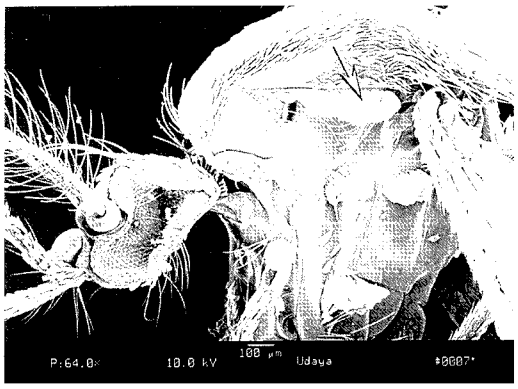
to Page 36

Thorax. Paratergite without scales



to Page 24

Thorax. Paratergite with scales

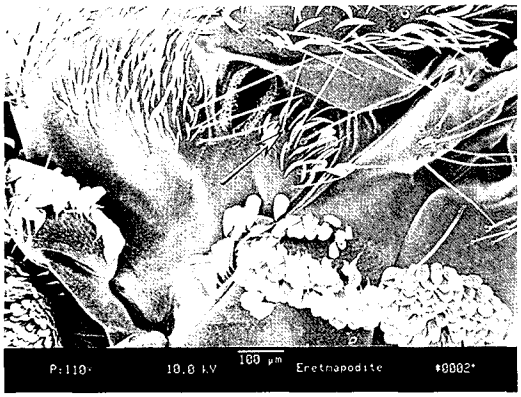


to Page 30

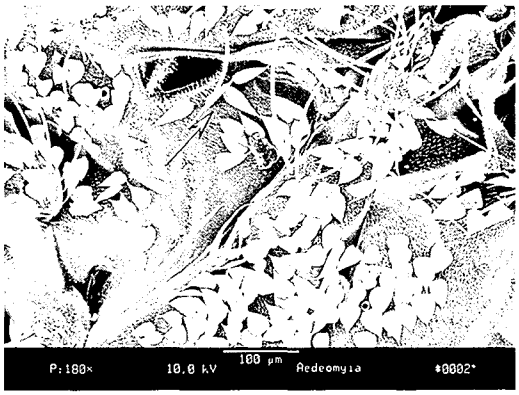
3. (continued)

Page 24

Thorax. Postspiracular setae present

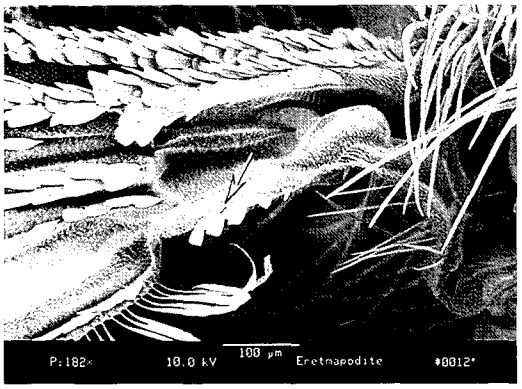


Thorax. Postspiracular setae absent

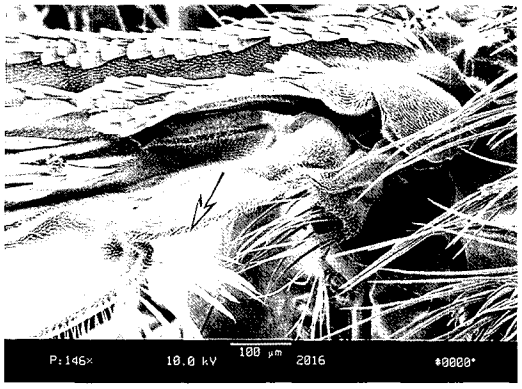


to Page 27b

Wing. Alula with broad decumbent scales



Wing. Alula without scales



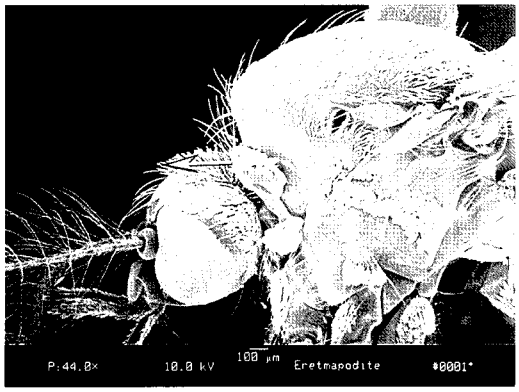
to Page 25

to Page 26b

3. (continued)

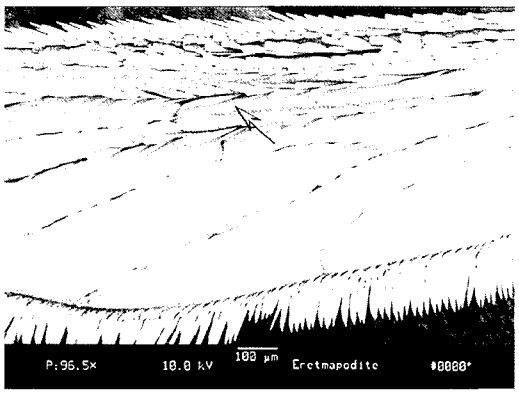
Page 25

Head. Vertex with erect forked scales numerous, not restricted to occiput



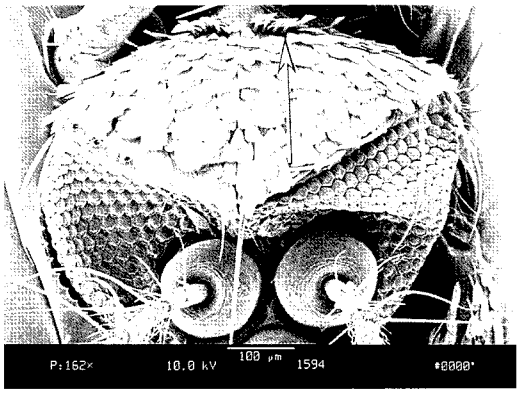
**

Wing. Plume scales all narrow



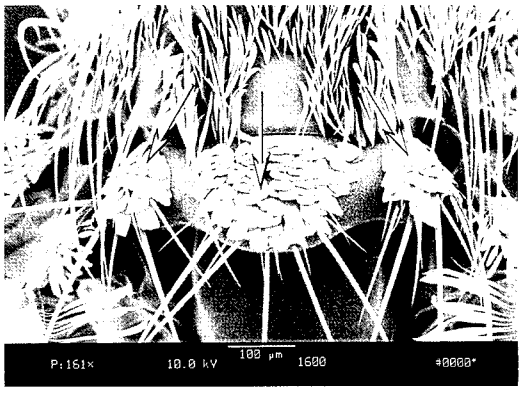
Eretmapodites

Head. Vertex with erect forked scales not numerous, restricted to occiput



**

Thorax. Scutellum with all broad scales

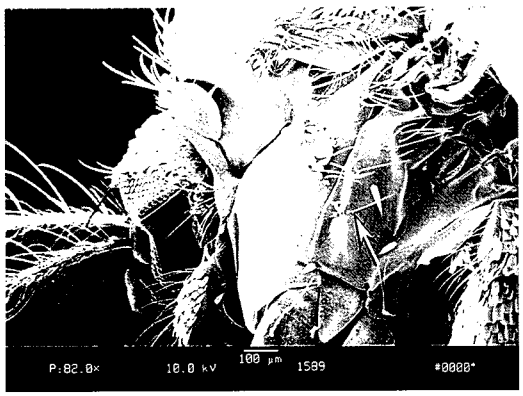


to Page 26a

3. (continued)

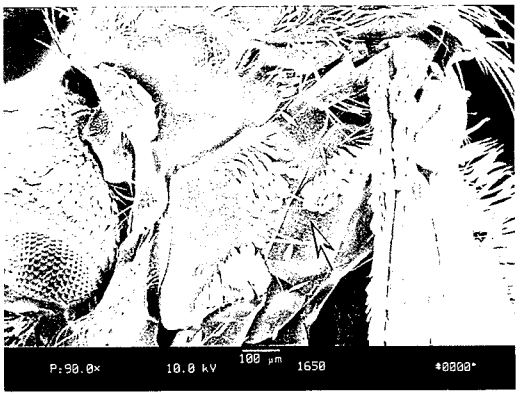
Page 26a

Thorax. Lower mesepimeral setae present



Aedes (in part)
(*Cancraedes*)

Thorax. Lower mesepimeral setae absent

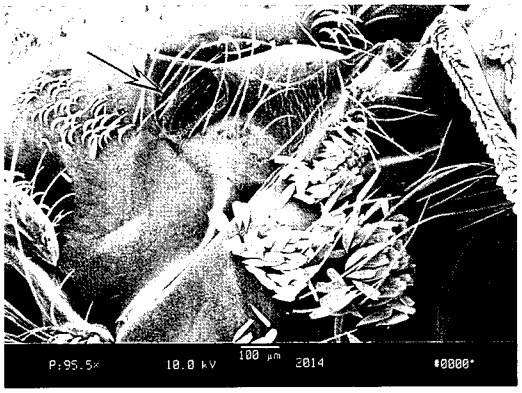


Aedes (in part)
(*Paraedes*) in part

Page 26b

**

Thorax. Prespiracular setae present



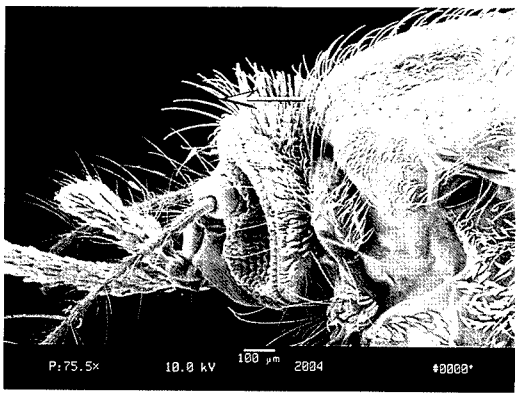
to Page 27a

3. (continued)

Page 27a

**

Head. Vertex with erect forked scales numerous, not restricted to occiput

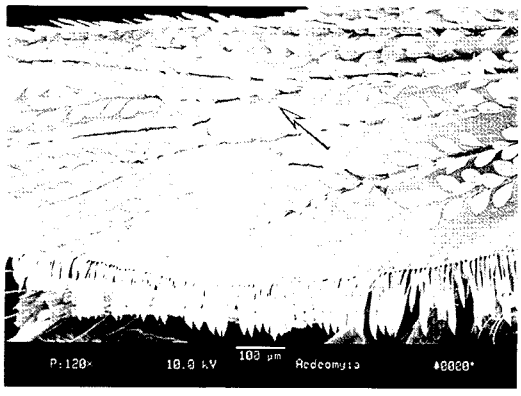


Psorophora (in part)

Page 27b

**

Wing. Plume scales all broad

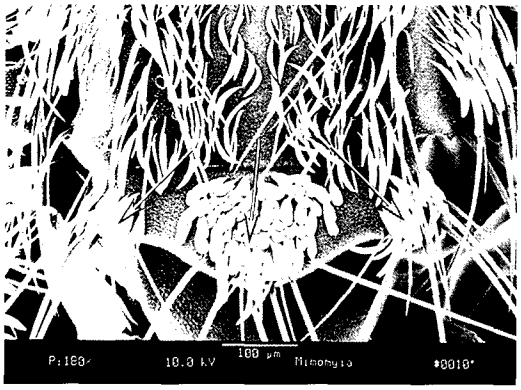


to Page 28

3. (continued)

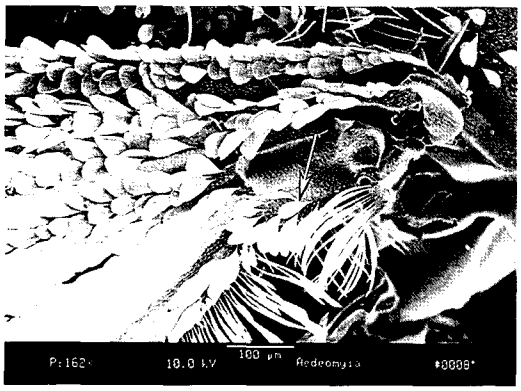
Page 28

Thorax. Scutellum with all broad scales



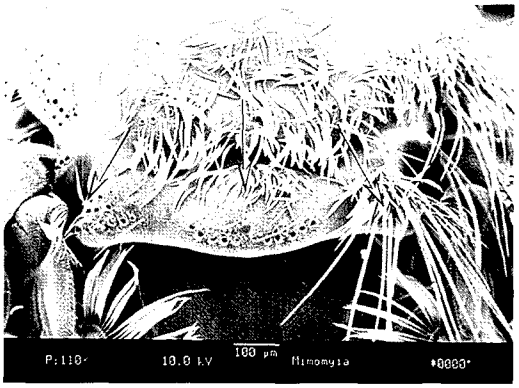
**

Wing. Alula with broad decumbent scales



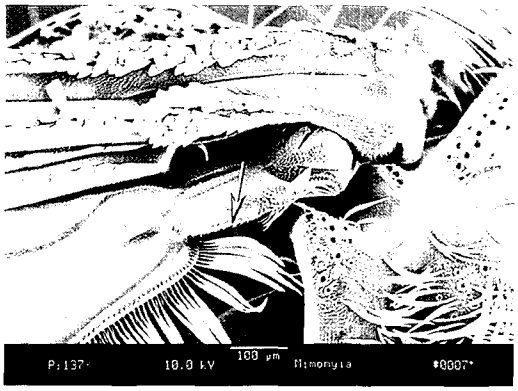
to Page 29

Thorax. Scutellum with all narrow scales



**

Wing. Alula without scales

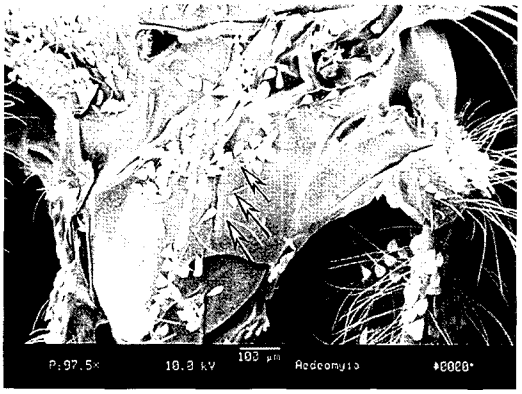


Mimomyia (in part)

3. (continued)

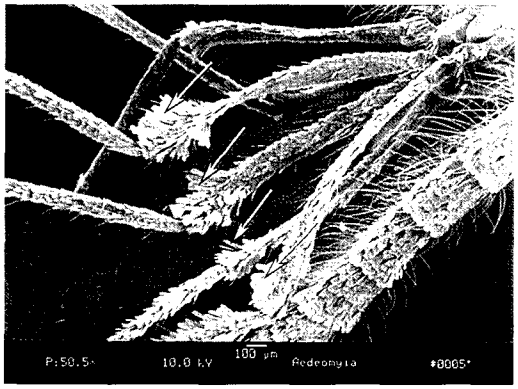
Page 29

Thorax. Lower mesepimeral setae *present*



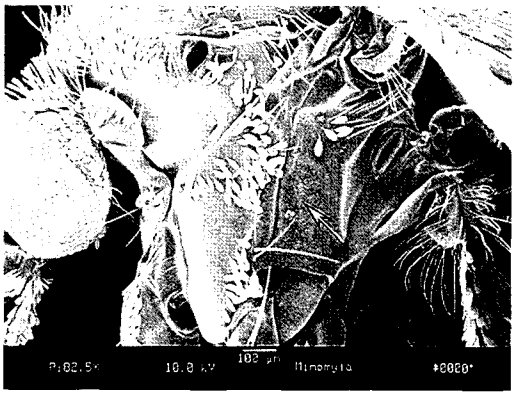
**

Legs. Mid- and hindfemora with large tufts of suberect scales at apex



Aedeomyia

Thorax. Lower mesepimeral setae *absent*

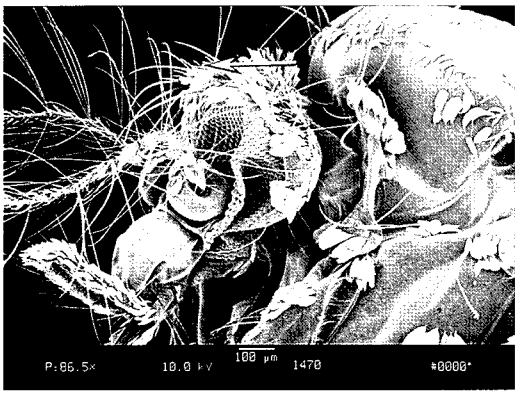


Mimomyia (in part)

3. (continued)

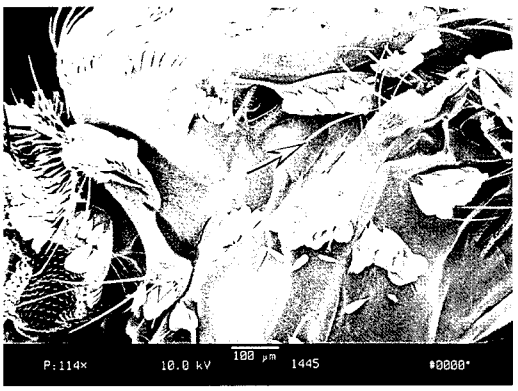
Page 30

Head. Vertex with erect forked scales numerous, not restricted to occiput



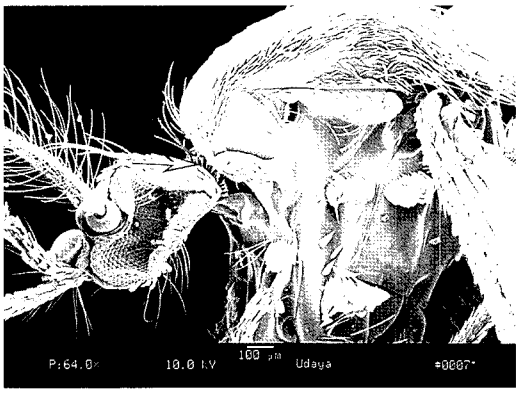
**

Thorax. Postspiracular setae present



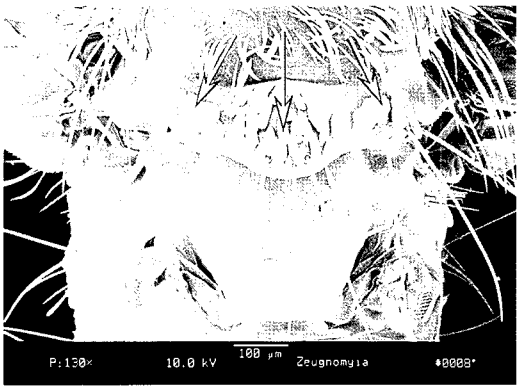
Ochlerotatus (in part)
(*Gymnometopa*) *mediovittatus*

Head. Vertex with erect forked scales not numerous, restricted to occiput



**

Thorax. Scutellum with all broad scales

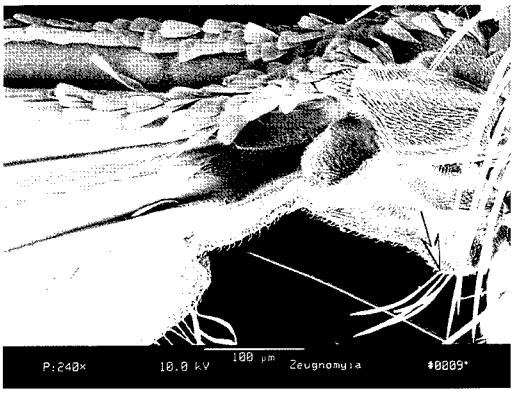


to Page 31

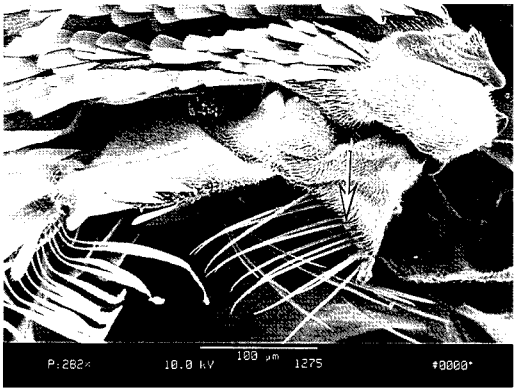
3. (continued)

Page 31

Wing. Upper calypter not fringed, or with only a few (4-6) setae



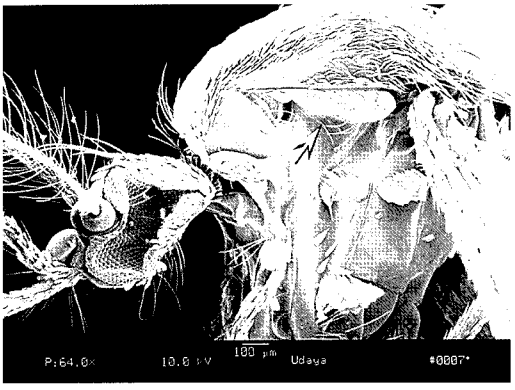
Wing. Upper calypter fringed with many hair-like setae



to Page 33

**

Thorax. Postspiracular setae present

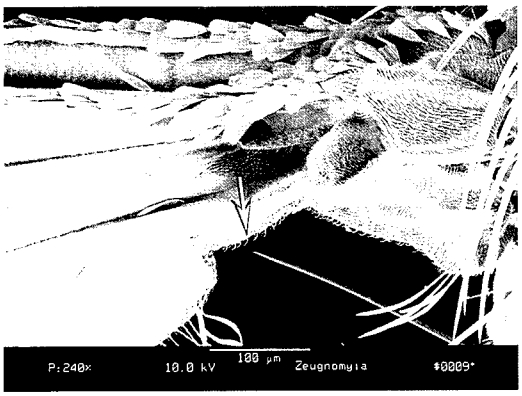


to Page 32

3. (continued)

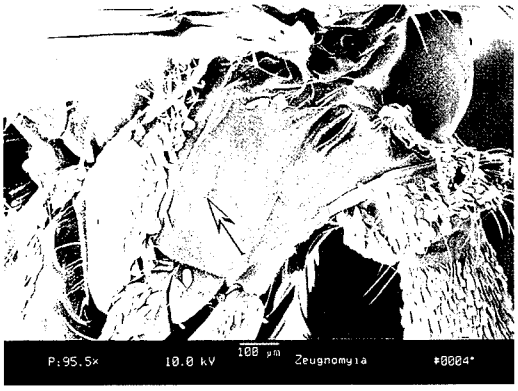
Page 32

Wing. Alula without scales



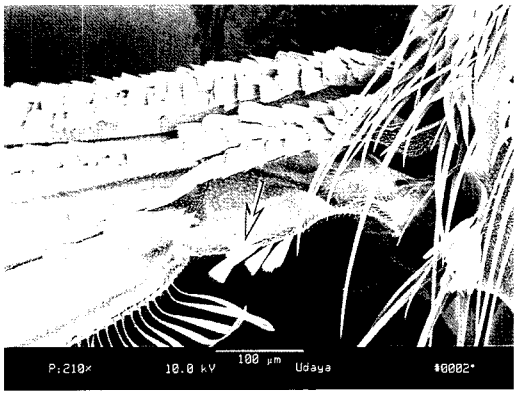
**

Thorax. Lower mesepimeral setae present



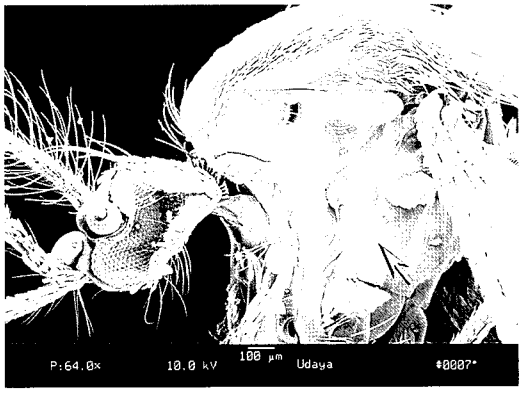
Zeugnomyia

Wing. Alula with broad decumbent scales



**

Thorax. Lower mesepimeral setae absent



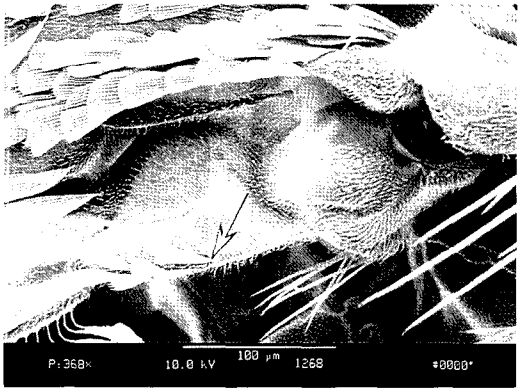
Udaya

3. (continued)

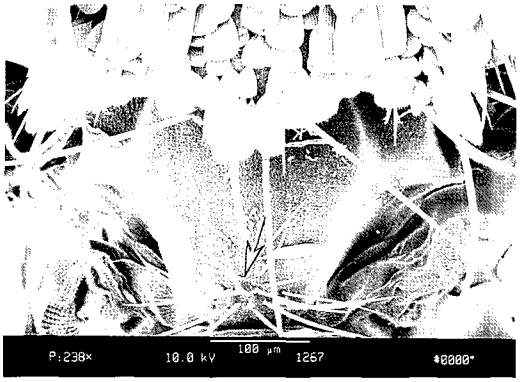
Page 33

**

Wing. Alula with broad decumbent scales

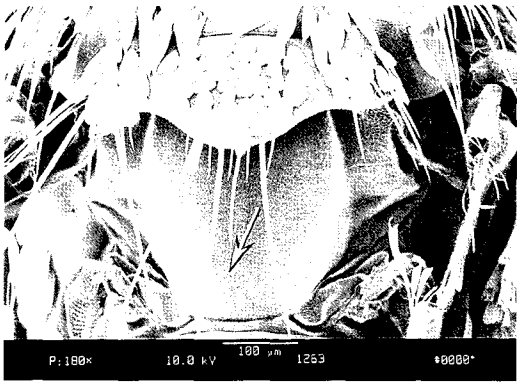


Thorax. Mesopostnotal setae present



to Page 34a

Thorax. Mesopostnotal setae absent



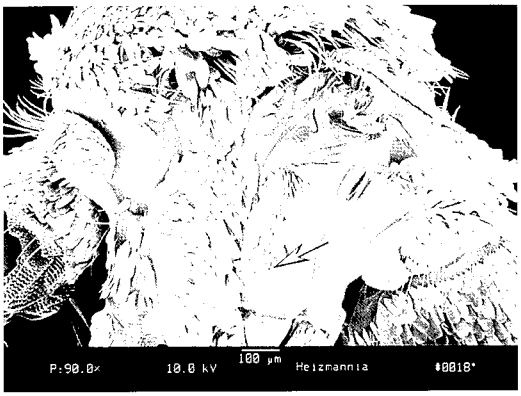
to Page 34b

3. (continued)

Page 34a

**

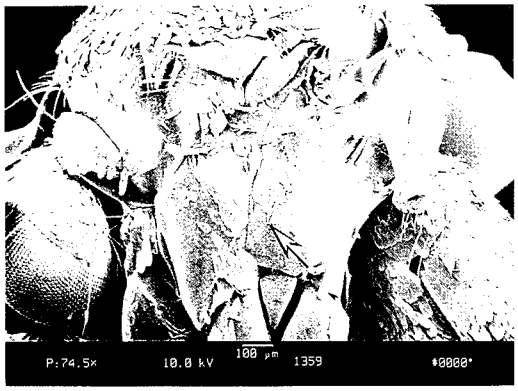
Thorax. Lower mesepimeral setae present



Heizmannia (in part)

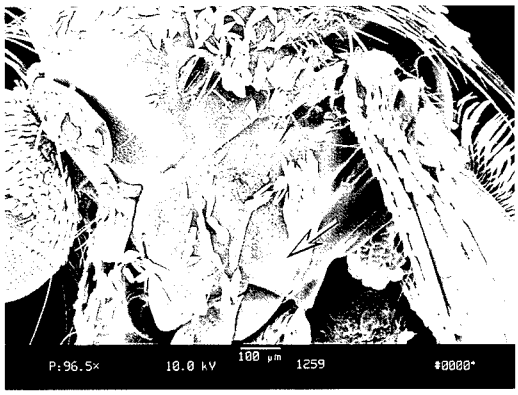
Page 34b

Thorax. Lower mesepimeral setae present



Heizmannia (in part)

Thorax. Lower mesepimeral setae absent

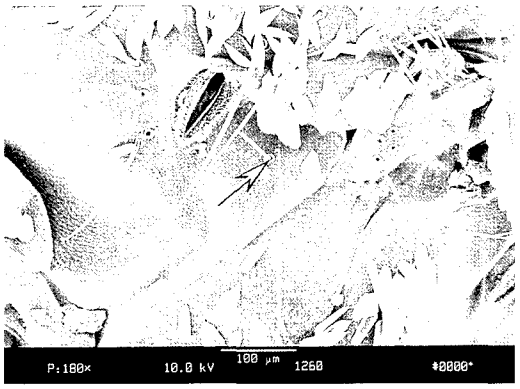


to Page 35

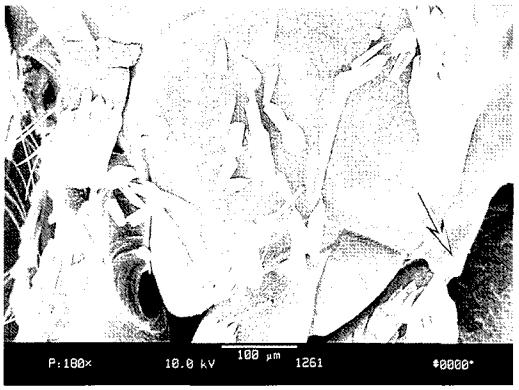
3. (continued)

Page 35

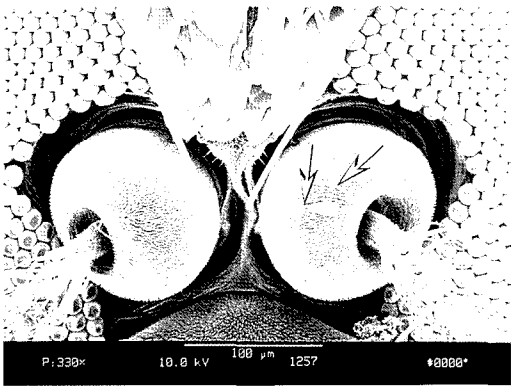
** 1
Thorax. Postspiracular setae present



** 2
Thorax. Metameron without scales



** 3
Head. Pedicel with short fine setae and a few small scales on mesal surface

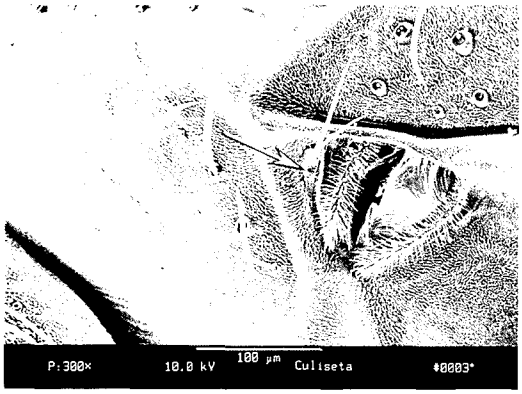


Heizmannia (in part)

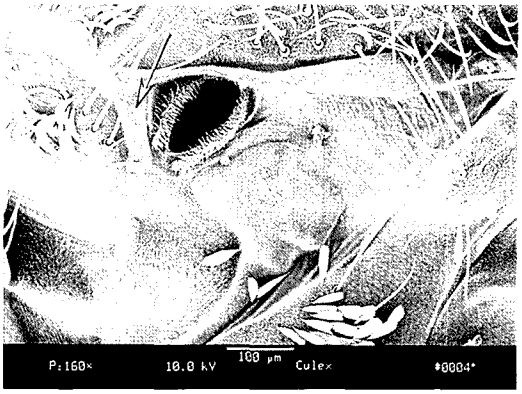
3. (continued)

Page 36

Thorax. Prespiracular setae present

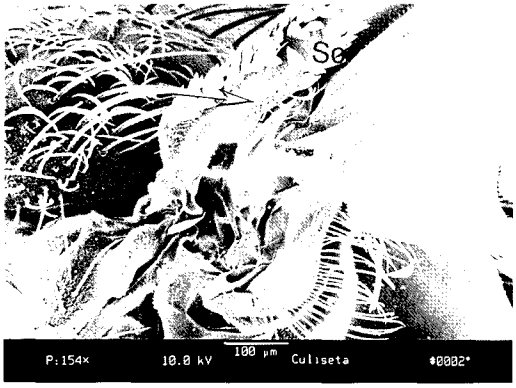


Thorax. Prespiracular setae absent

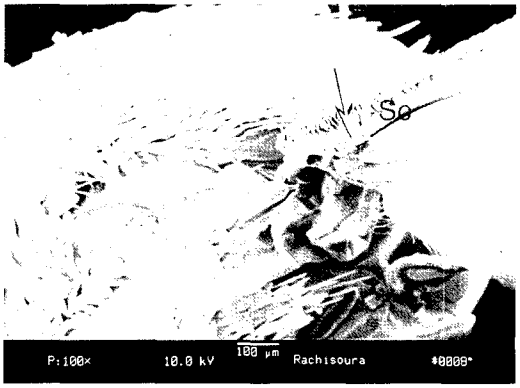


to Page 38

Wing. Base of vein Sc with a patch of setae on ventral side



Wing. Base of vein Sc without a patch of setae on ventral side



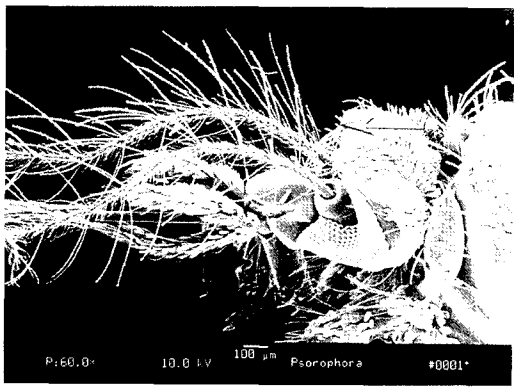
Culiseta (in part)

to Page 37

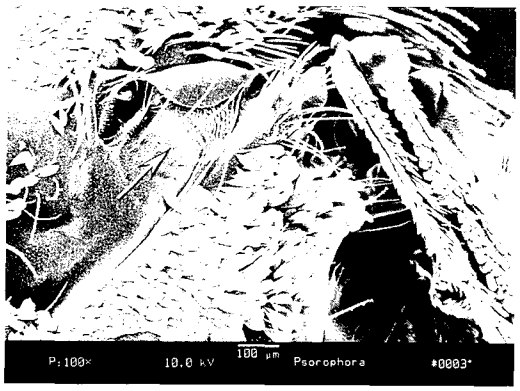
3. (continued)

Page 37

Head. Vertex with erect forked scales numerous, not restricted to occiput

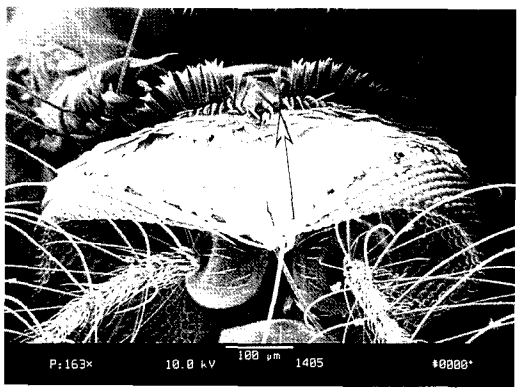


Thorax. Postspiracular setae present



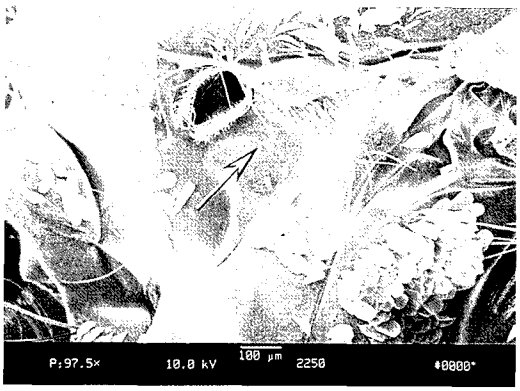
Psorophora (in part)

Head. Vertex with erect forked scales not numerous, restricted to occiput, or without erect forked scales



to Page 92

Thorax. Postspiracular setae absent

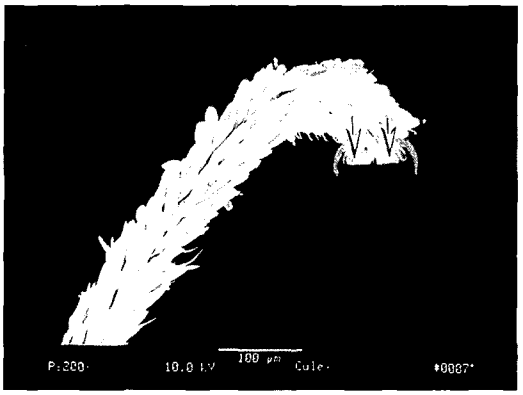


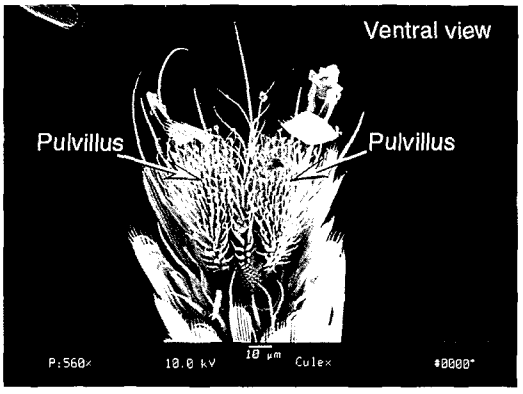
Culiseta (in part)

3. (continued)

Page 38

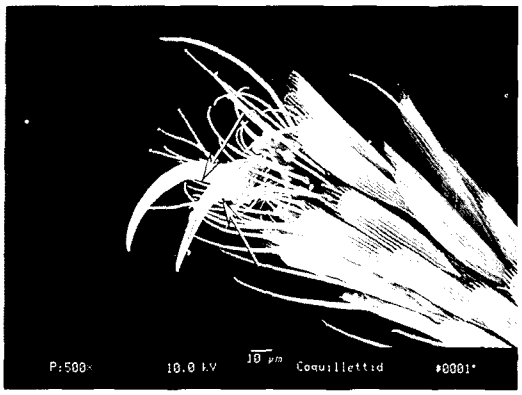
Legs. Pulvillus present, well developed (pad - like)

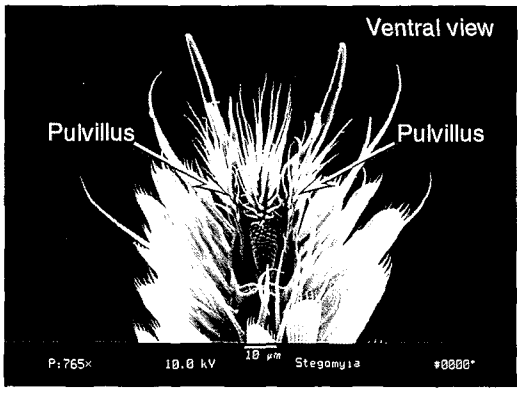




to Page 39

Legs. Pulvillus absent, or not well developed (hair - like)





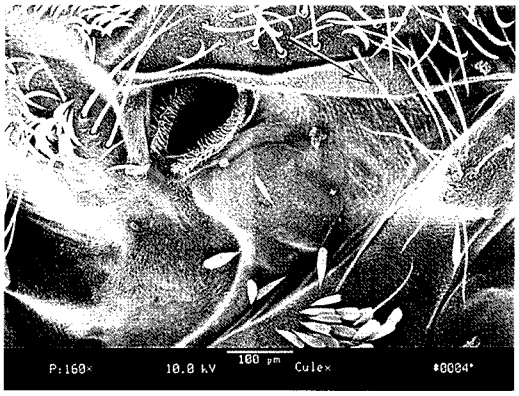
to Page 41

3. (continued)

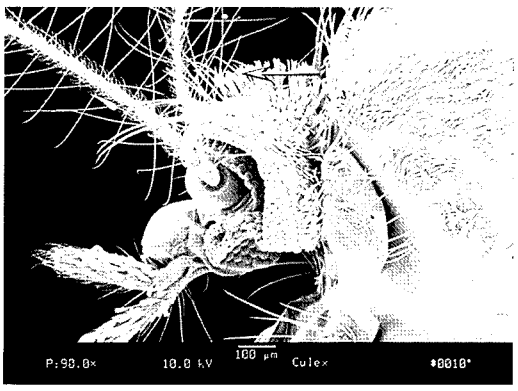
Page 39

**

Thorax. Paratergite without scales

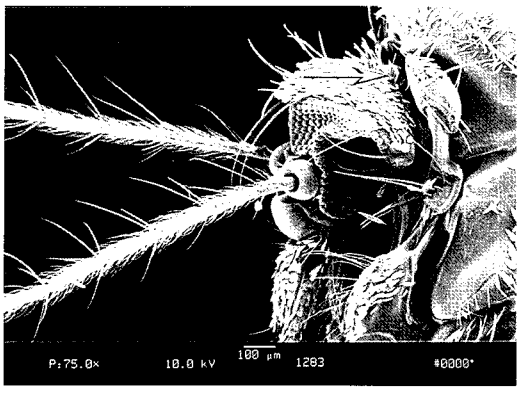


Head. Vertex with erect forked scales numerous, not restricted to occiput



to Page 40a

Head. Vertex with erect forked scales not numerous, restricted to occiput

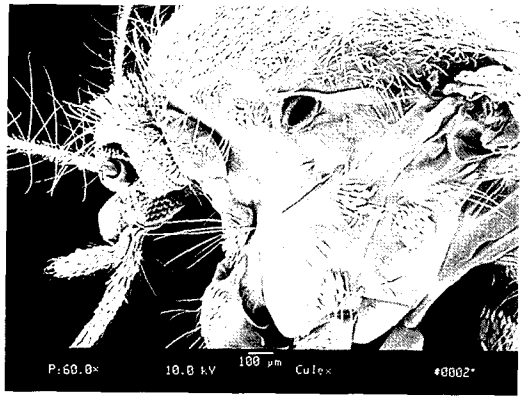


to Page 40b

3. (continued)

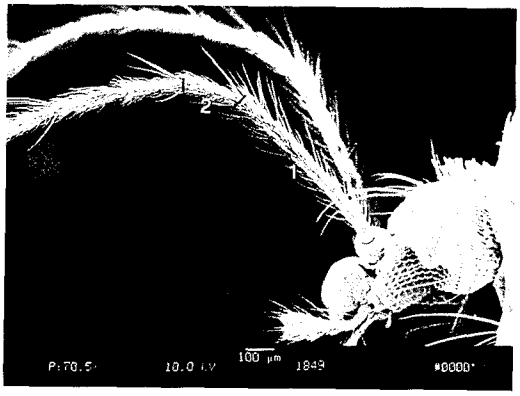
Page 40a

Head. Antenna with flagellomere 1 about as long as flagellomere 2



Culex

Head. Antenna with flagellomere 1 much longer than flagellomere 2

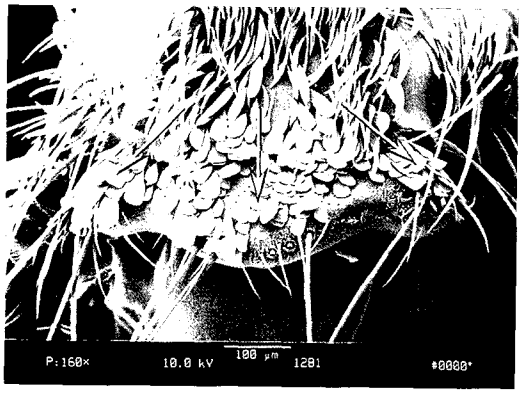


Deinocerites

Page 40b

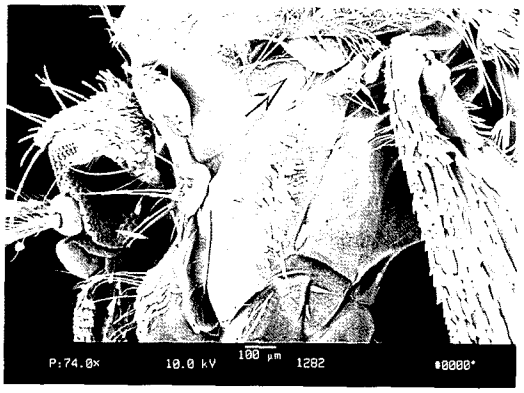
** 1

Thorax. Scutellum with all broad scales



** 2

Thorax. Postspiracular setae absent



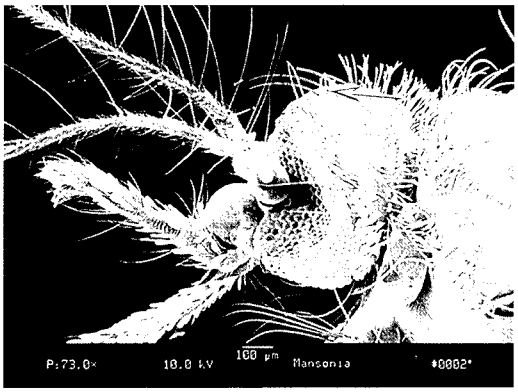
Galindomyia

Galindomyia leei

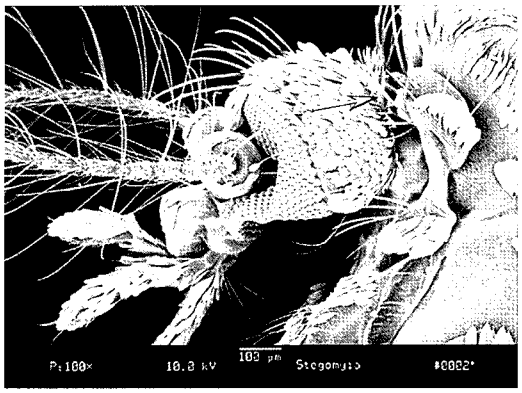
3. (continued)

Page 41

Head. Vertex with erect forked scales numerous, not restricted to occiput

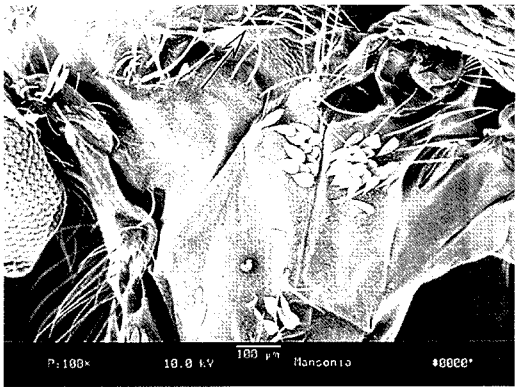


Head. Vertex with erect forked scales not numerous, restricted or not restricted to occiput, or without erect forked scales



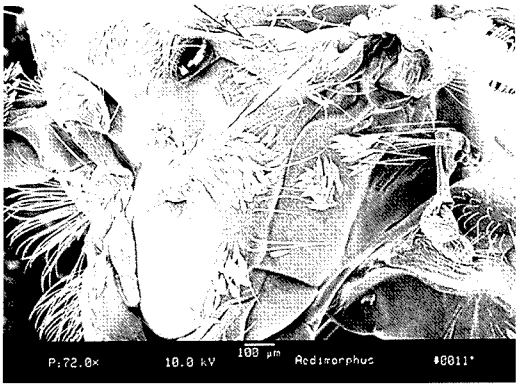
to Page 56

Thorax. Paratergite without scales



to Page 42

Thorax. Paratergite with scales

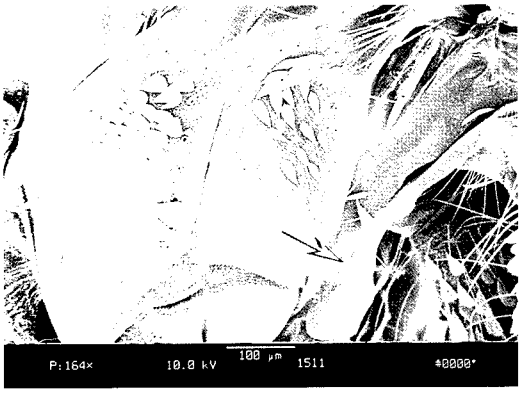


to Page 55c

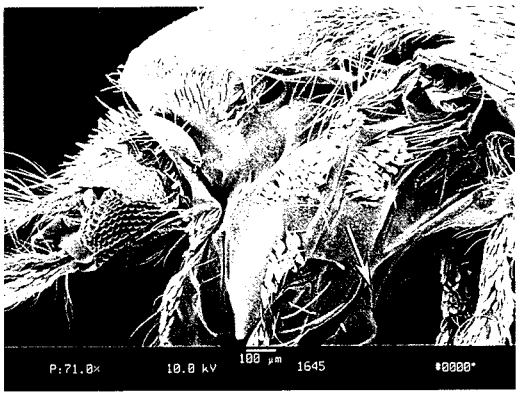
3. (continued)

Page 42

Thorax. Metameron with short setae



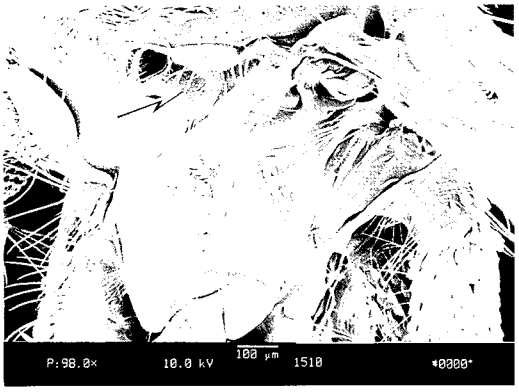
Thorax. Metameron without short setae



to Page 43

**

Thorax. Postspiracular setae present

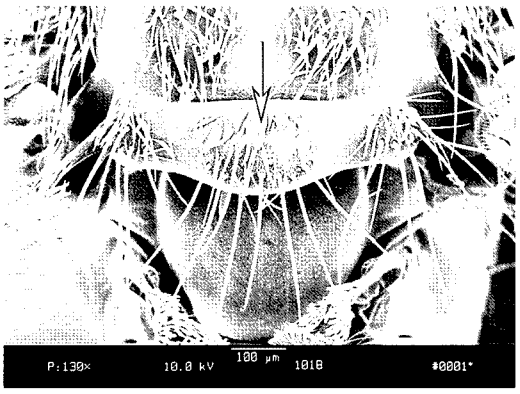


Ochlerotatus (in part)
(*Geoskusea*)

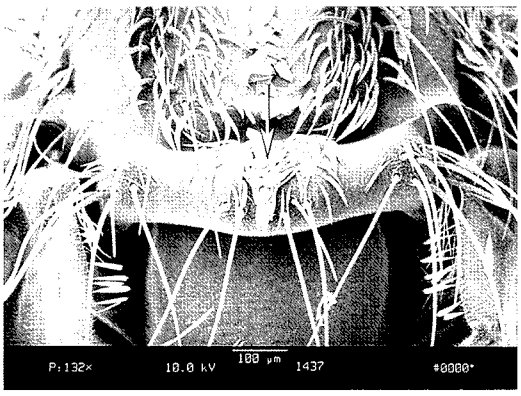
3. (continued)

Page 43

Thorax. Scutellum with all narrow scales on midlobe

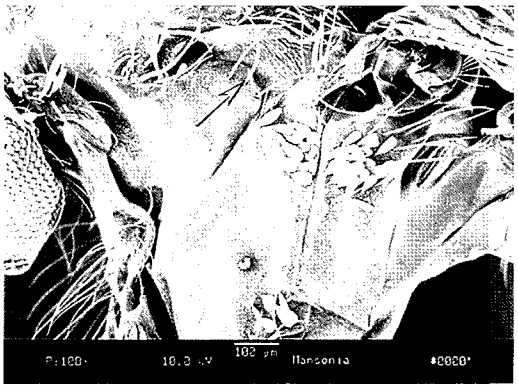


Thorax. Scutellum with all, or at least a few broad scales on midlobe



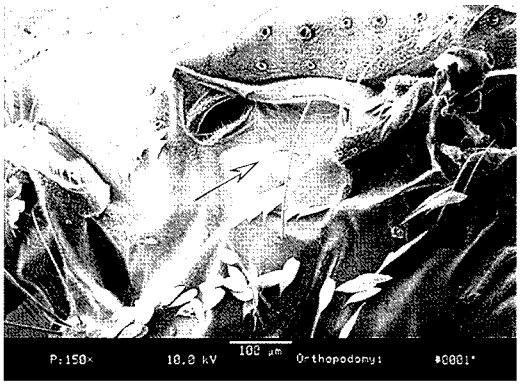
to Page 50b

Thorax. Postspiracular setae present



to Page 44

Thorax. Postspiracular setae absent

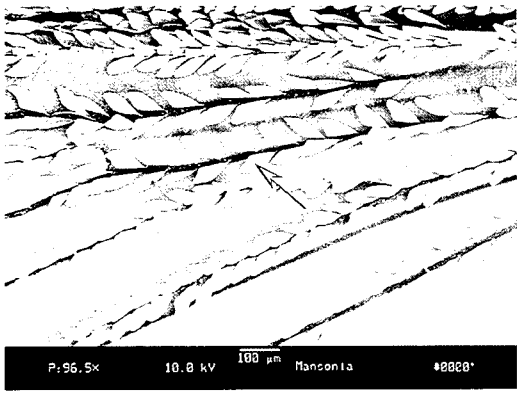


to Page 49

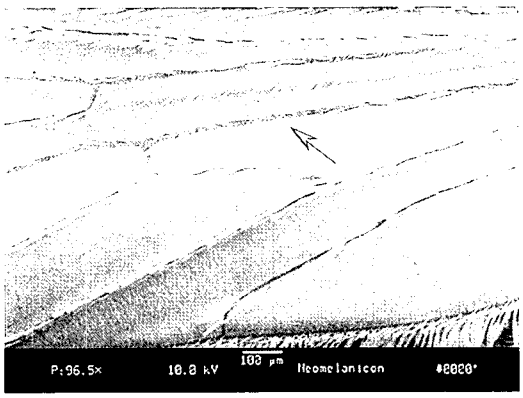
3. (continued)

Page 44

Wing. Most plume scales very broad and asymmetrical



Wing. Plume scales narrow, and not asymmetrical



to Page 45b

**

Thorax. Subspiracular area without scales



to Page 45a

3. (continued)

Page 45a

**

Thorax. Lower mesepimeral setae present

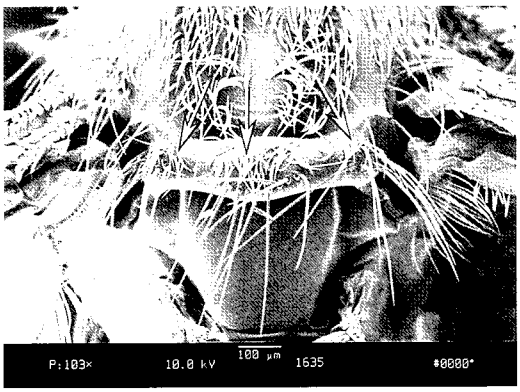


Mansonia

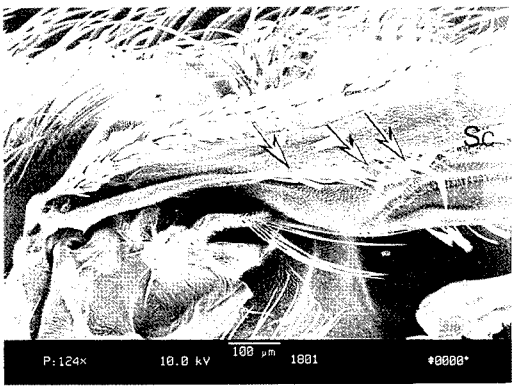
Page 45b

**

Thorax. Scutellum with all narrow scales

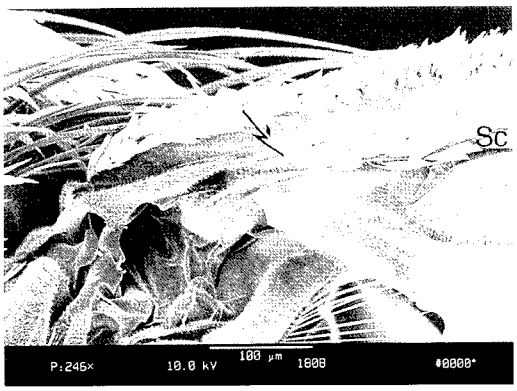


Wing. Base of vein Sc with a patch of setae on ventral side



Ochlerotatus (in part)
(*Nothoskusea*) *chathamicus*

Wing. Base of vein Sc without a patch of setae on ventral side

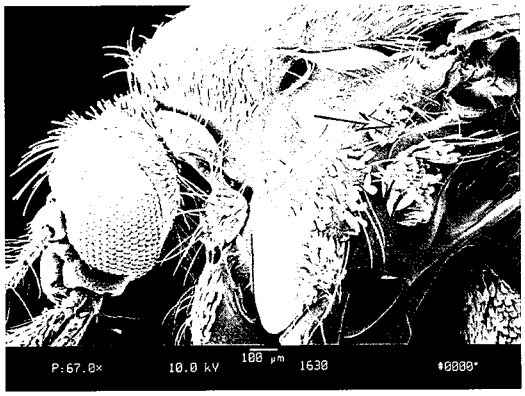


to Page 46

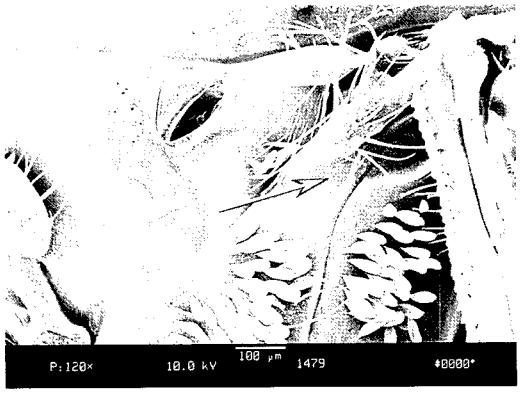
3. (continued)

Page 46

Thorax. Lower prealar scale patch present

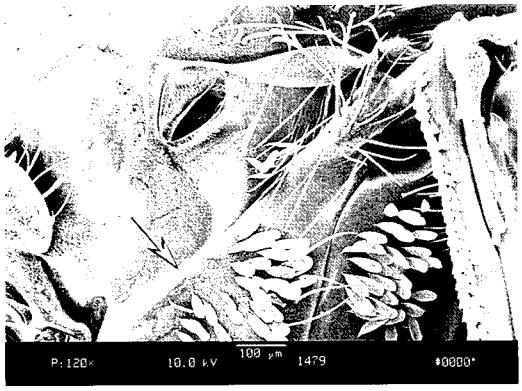


Thorax. Lower prealar scale patch absent

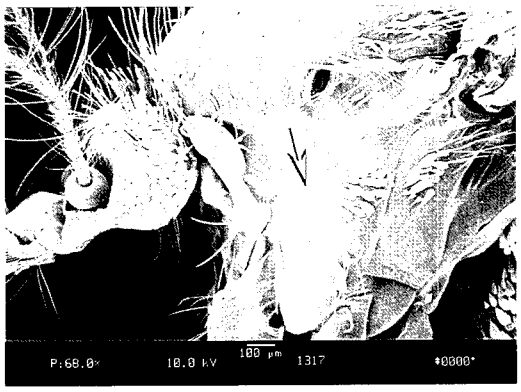


Ochlerotatus (in part)
(*Ochlerotatus*)

Thorax. Subspiracular area with scales



Thorax. Subspiracular area without scales



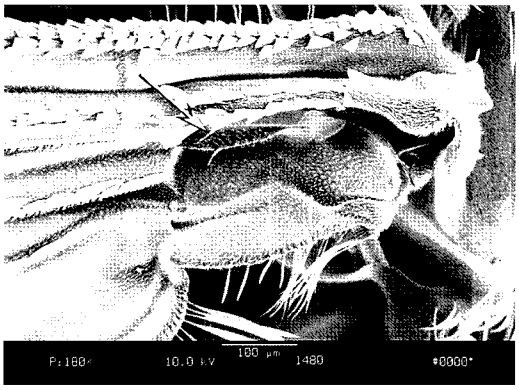
to Page 47a

to Page 47b

3. (continued)

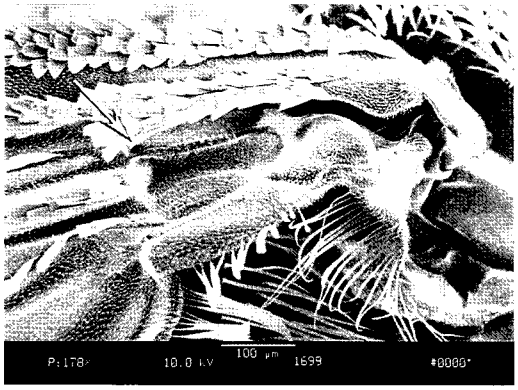
Page 47a

Wing. Remigial setae present



Aedes (in part)
(*Edwardsaedes*)

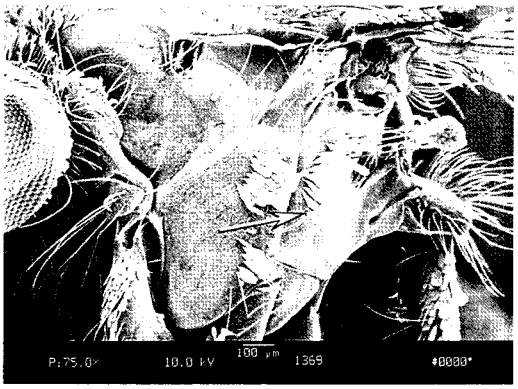
Wing. Remigial setae absent



Aedes (in part)
(*Neomelaniconion*)

Page 47b

Thorax. Lower mesepimeral setae present



to Page 48a

Thorax. Lower mesepimeral setae absent

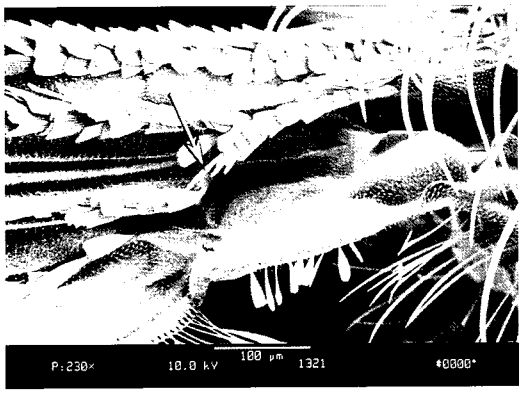


to Page 48b

3. (continued)

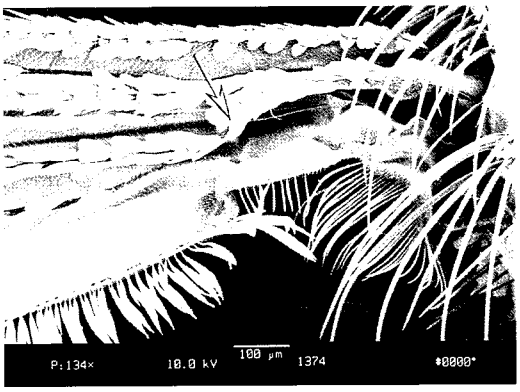
Page 48a

Wing. Remigial setae present



Aedes (in part)
(*Isoaedes*) *cavaticus*

Wing. Remigial setae absent

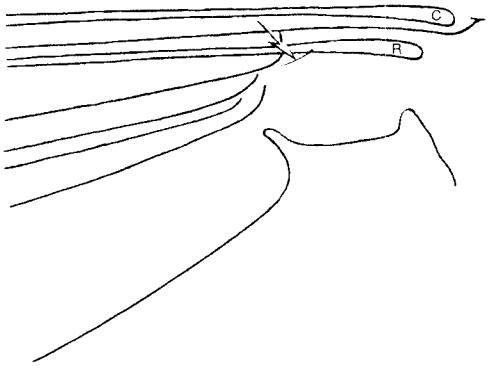


Coquillettidia (in part)

Page 48b

**

Wing. Remigial setae present

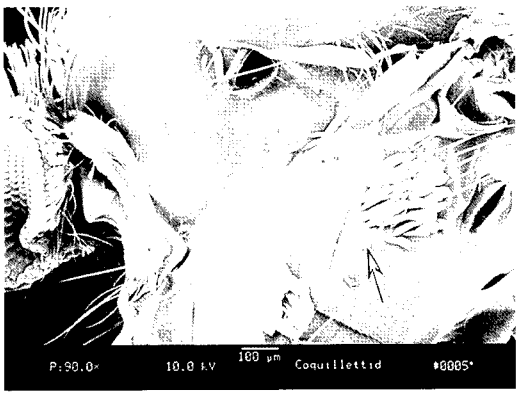


Ochlerotatus (in part)
(*Levua*)

3. (continued)

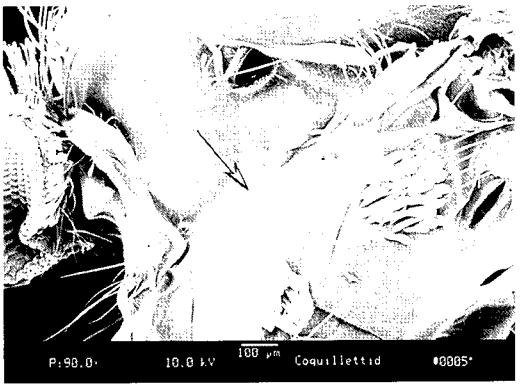
Page 49

Thorax. Lower mesepimeral setae present



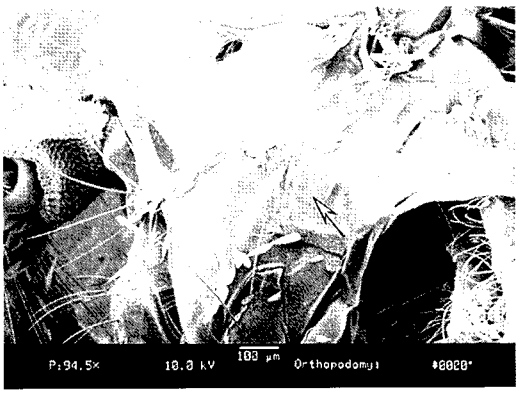
**

Thorax. Subspiracular area without scales



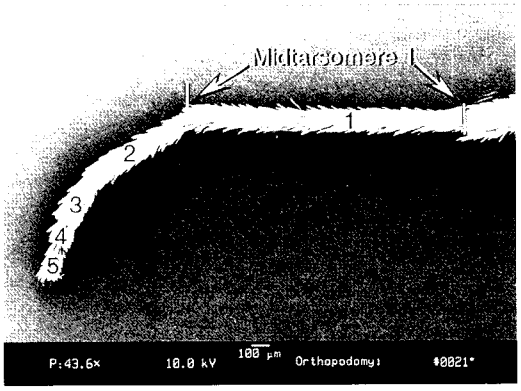
Coquillettidia (in part)

Thorax. Lower mesepimeral setae absent



**

Leg. Midtarsomere 1 distinctly longer than tarsomeres 2-5 combined



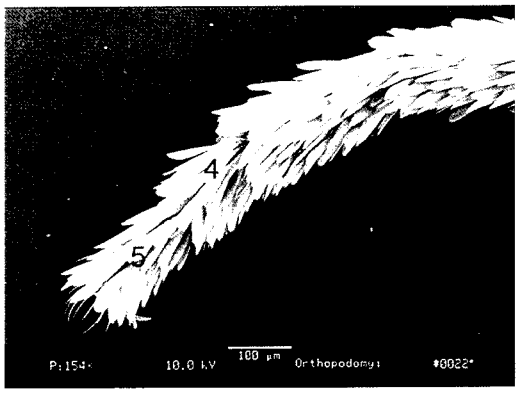
to Page 50a

3. (continued)

Page 50a

**

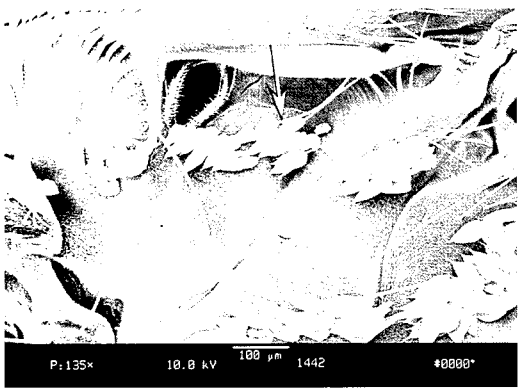
Leg. Midtarsomere 4 shorter than midtarsomere 5



Orthopodomyia

Page 50b

Thorax. Postspiracular setae present



to Page 51

Thorax. Postspiracular setae absent

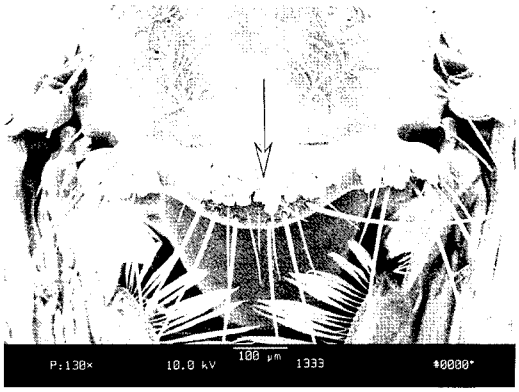


to Page 53b

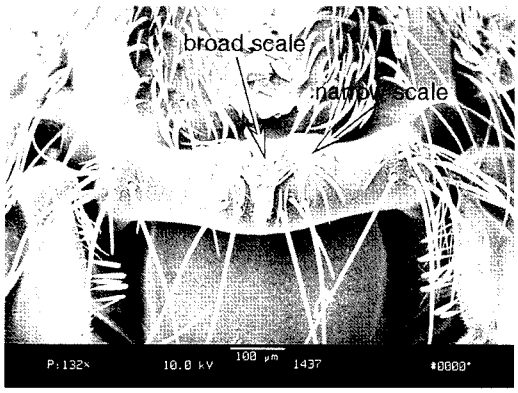
3. (continued)

Page 51

Thorax. Scutellum with all broad scales on midlobe

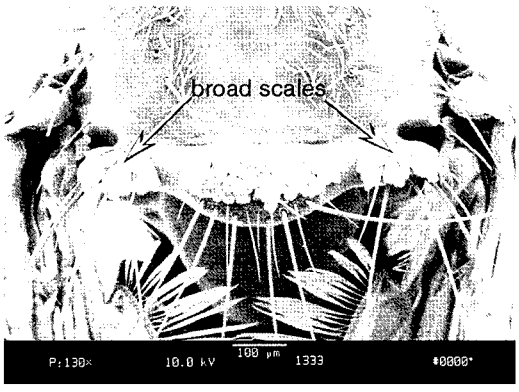


Thorax. Scutellum with narrow and broad scales on midlobe



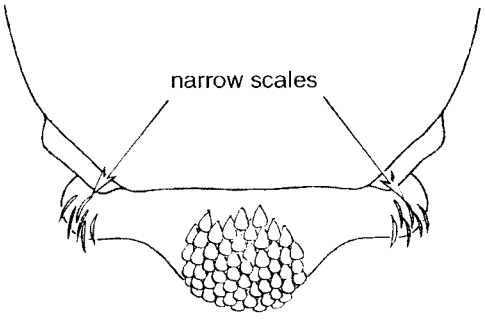
to Page 52

Thorax. Scutellum with all broad scales on lateral lobes



Aedes (in part)
(*Aedimorphus*) in part

Thorax. Scutellum with narrow scales on lateral lobes



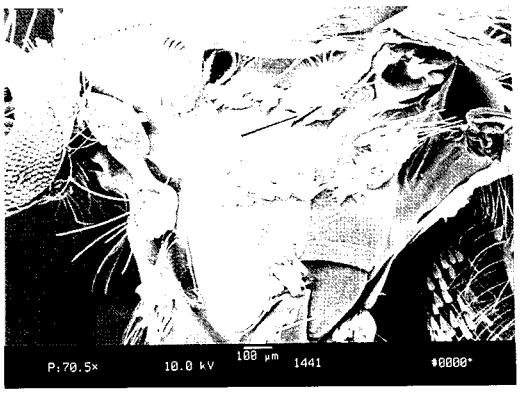
Ochlerotatus (in part)
(*Chaetocruiomyia*) in part

3. (continued)

Page 52

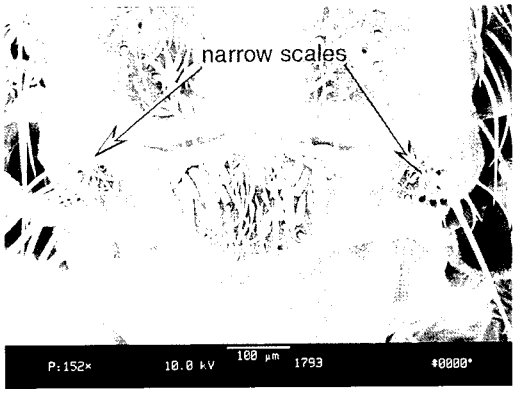
**

Thorax. Lower prealar scale patch present



**

Thorax. Scutellum with all narrow scales on lateral lobes

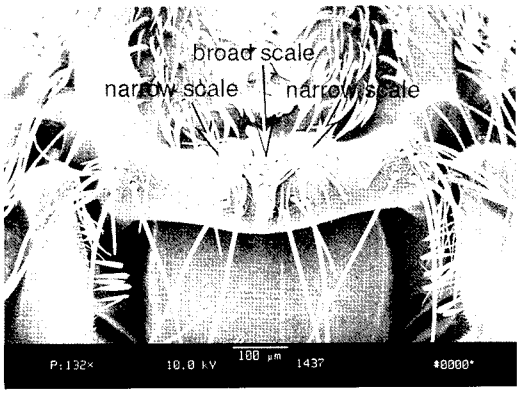


to Page 53a

3. (continued)

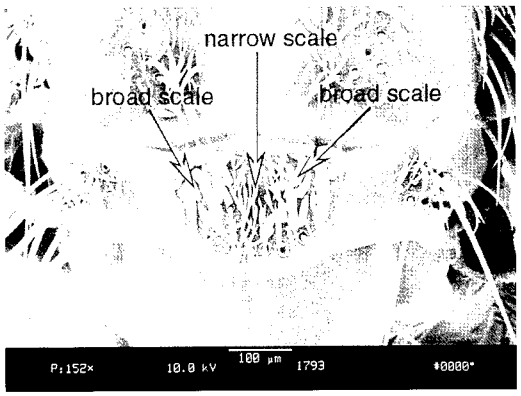
Page 53a

Thorax. Scutellum with broad scales in middle, and with narrow scales laterally on midlobe



Ochlerotatus (in part)
(*Aztecaedes*) *ramirezi*

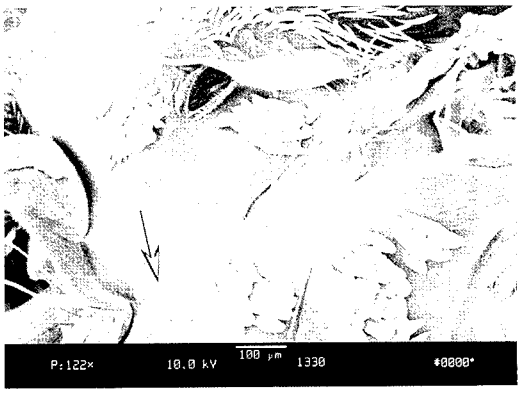
Thorax. Scutellum with narrow scales in middle, and with broad scales laterally on midlobe



Ochlerotatus (in part)
(*Finlaya*) in part

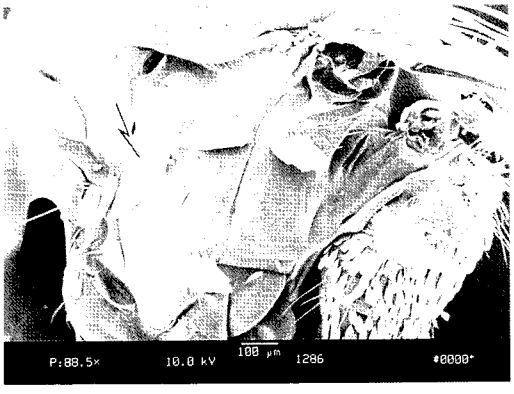
Page 53b

Thorax. Subspiracular area with scales



to Page 54a

Thorax. Subspiracular area without scales



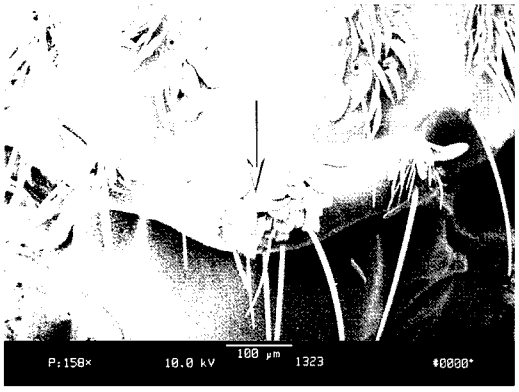
to Page 54b

3. (continued)

Page 54a

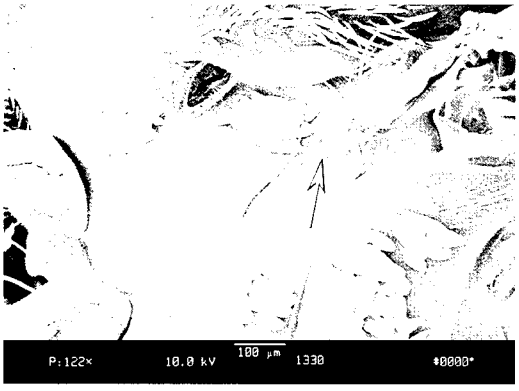
**

Thorax. Scutellum with all broad scales on midlobe



**

Thorax. Lower prealar scale patch present

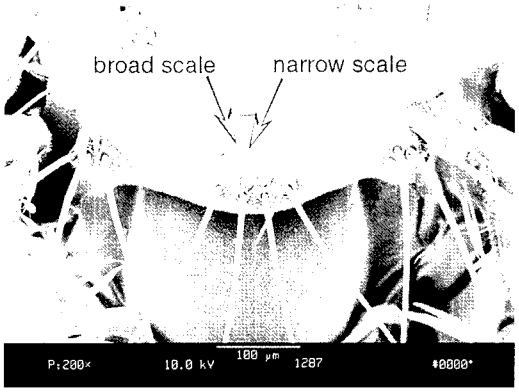


to Page 55a

Page 54b

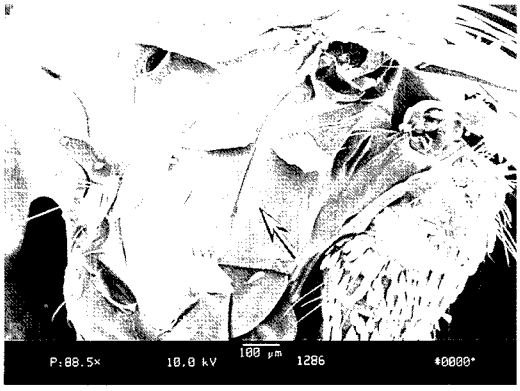
**

Thorax. Scutellum with narrow and broad scales on midlobe



**

Thorax. Lower mesepimeral setae present



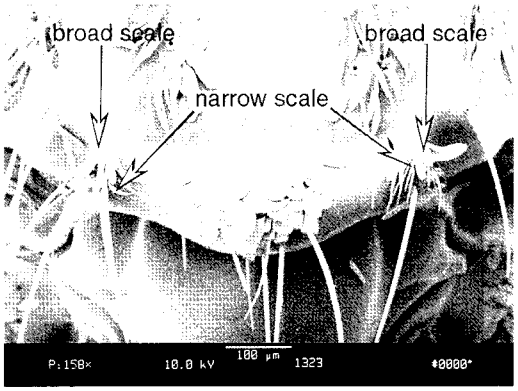
to Page 55b

3. (continued)

Page 55a

**

Thorax. Scutellum with broad and narrow scales on lateral lobes

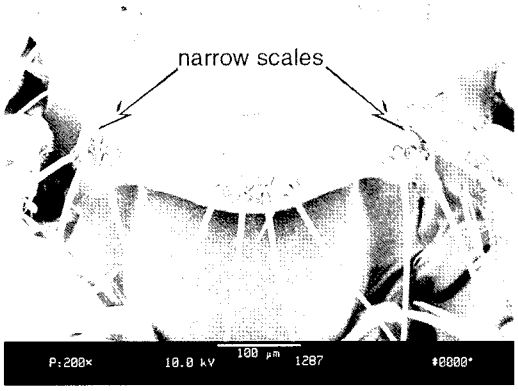


Ochlerotatus (in part)
(*Kompia*) *purpureipes*

Page 55b

**

Thorax. Scutellum with all narrow scales on lateral lobes

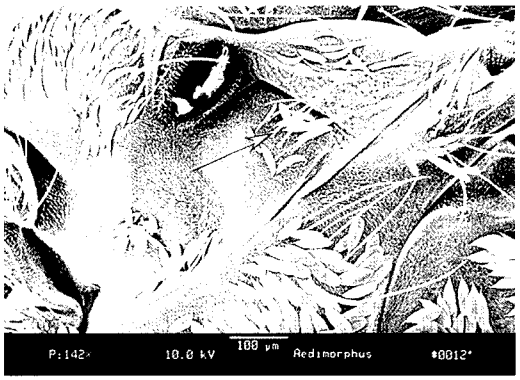


Ayurakitia

Page 55c

**

Thorax. Postspiracular setae present

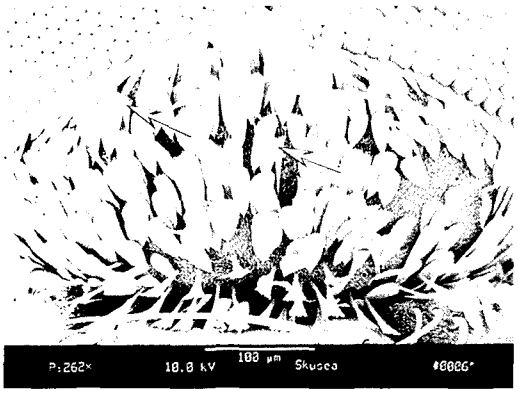


to Page 105

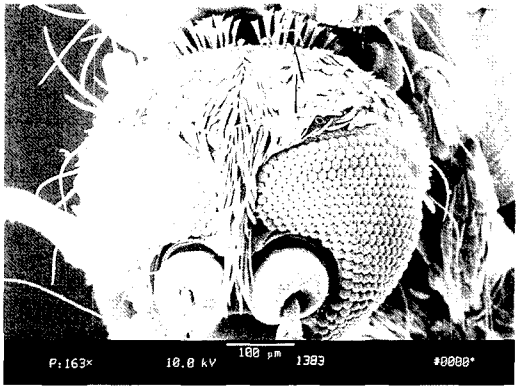
3. (continued)

Page 56

Head. Vertex with erect forked scales not numerous, not restricted to occiput

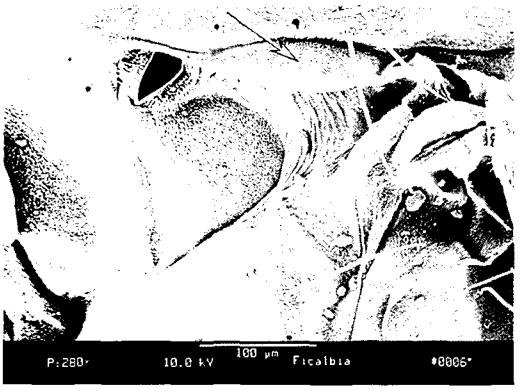


Head. Vertex with erect forked scales not numerous, restricted to occiput, or without erect forked scales



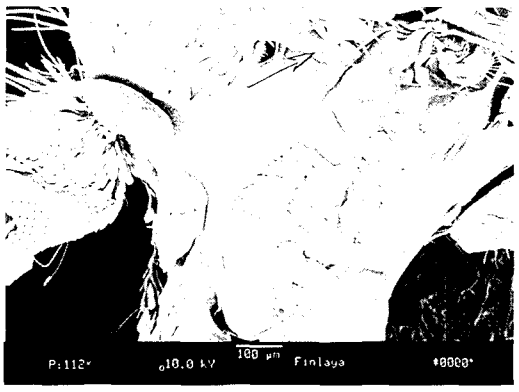
to Page 69b

Thorax. Paratergite without scales



to Page 57

Thorax. Paratergite with scales

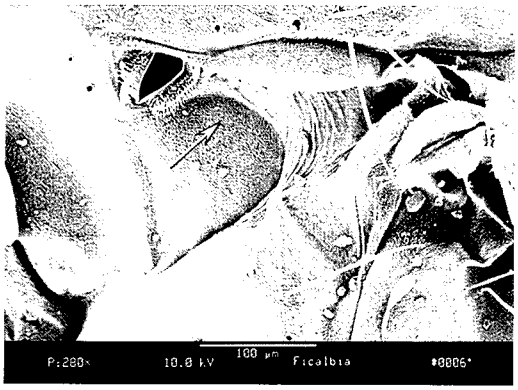


to Page 63b

3. (continued)

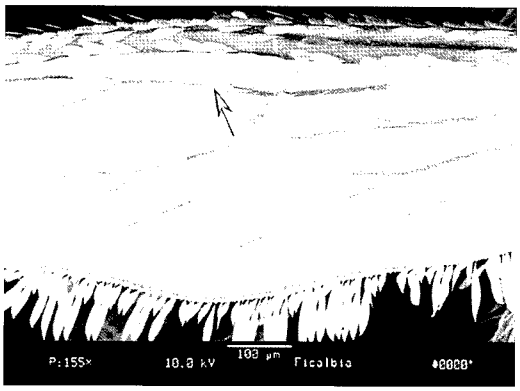
Page 57

Thorax. Postspiracular setae absent



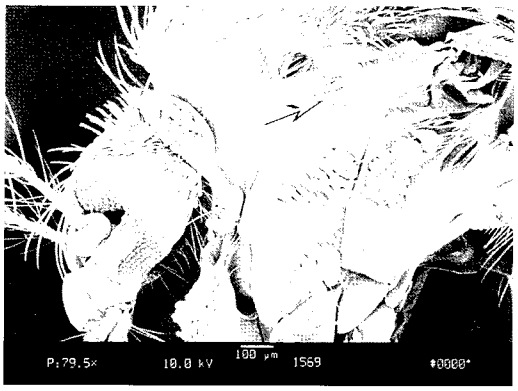
**

Wing. Plume scales all broad



to Page 58a

Thorax. Postspiracular setae present



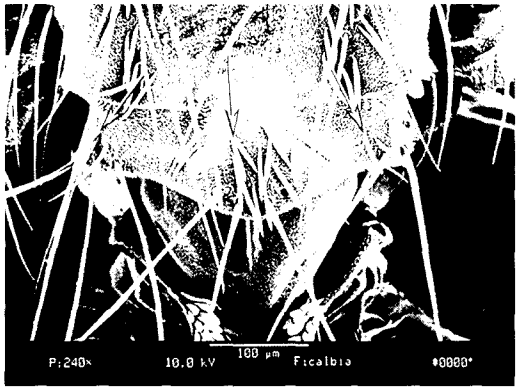
to Page 58b

3. (continued)

Page 58a

**

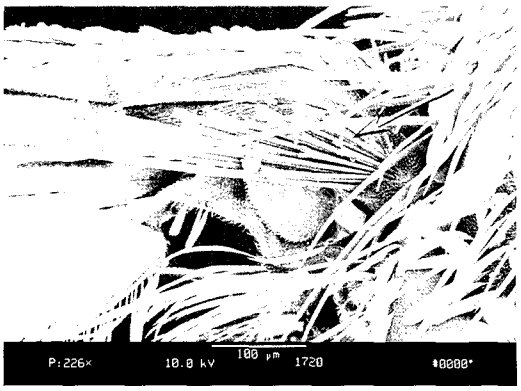
Thorax. Scutellum with all narrow scales



Ficalbia

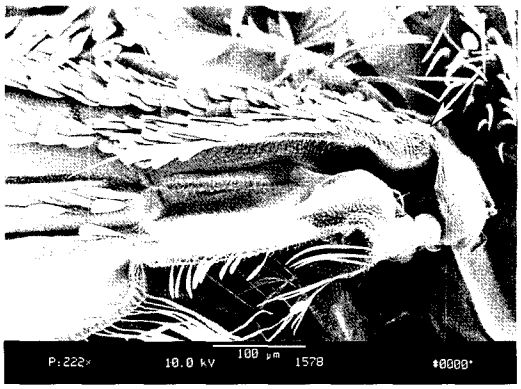
Page 58b

Wing. Base of vein R with a fan-like tuft of long forked scales on dorsal side



Ochlerotatus (in part)
(*Chaetocruiomyia*) in part

Wing. Base of vein R without a fan-like tuft of long forked scales on dorsal side

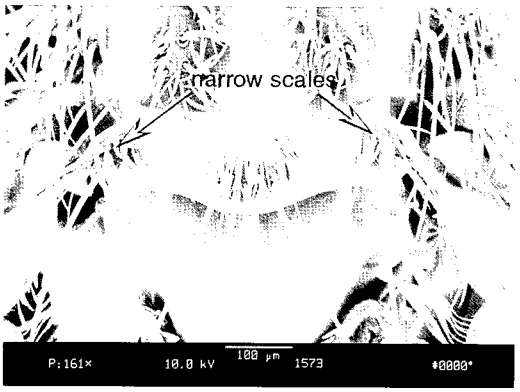


to Page 59

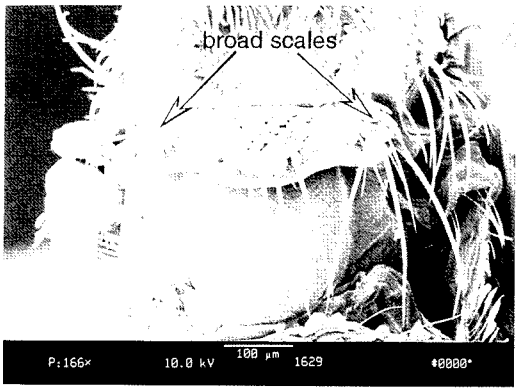
3. (continued)

Page 59

Thorax. Scutellum with all narrow scales on lateral lobes

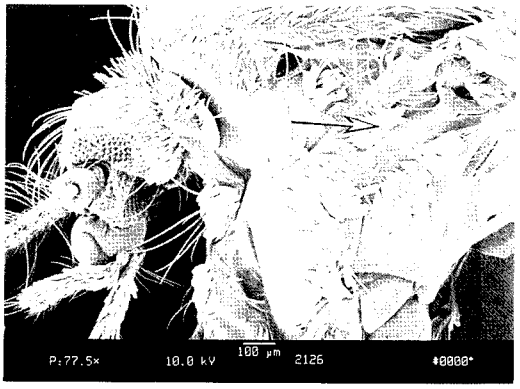


Thorax. Scutellum with all broad scales on lateral lobes



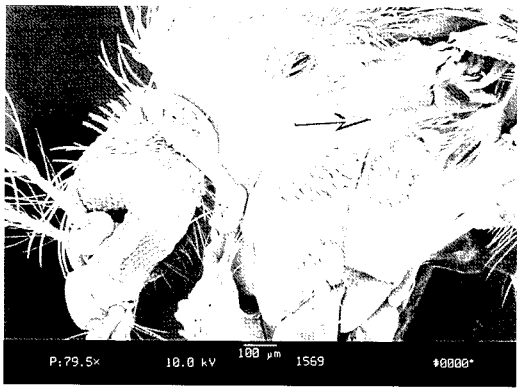
to Page 61

Thorax. Lower prealar scale patch present



to Page 60a

Thorax. Lower prealar scale patch absent



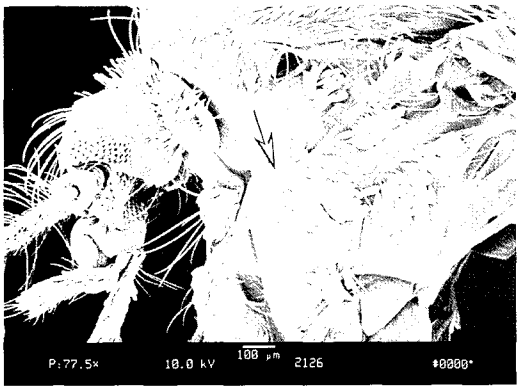
to Page 60b

3. (continued)

Page 60a

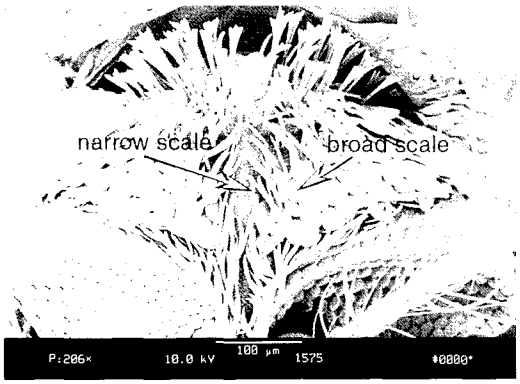
**

Thorax. Subspiracular area with scales



Ochlerotatus (in part)
Atropalpus Group

Head. Vertex with narrow and broad decumbent scales

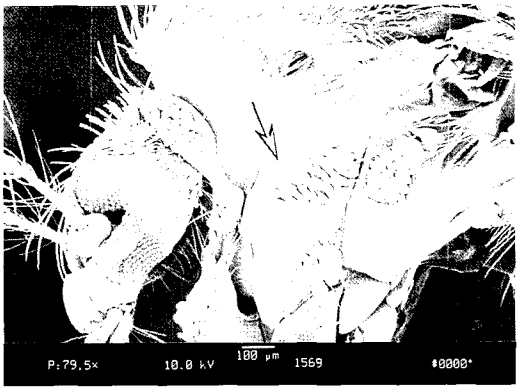


Aedes (in part)
(*Paraedes*) in part

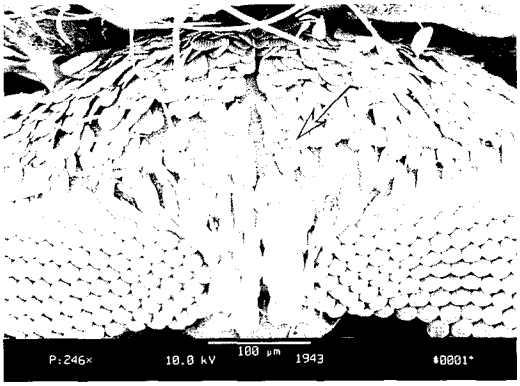
Page 60b

**

Thorax. Subspiracular area without scales



Head. Vertex with broad, flat decumbent scales



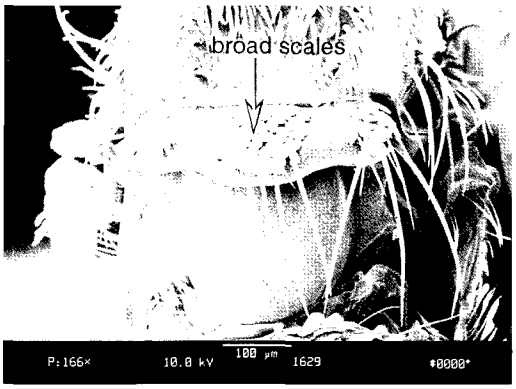
Verrallina (in part)

3. (continued)

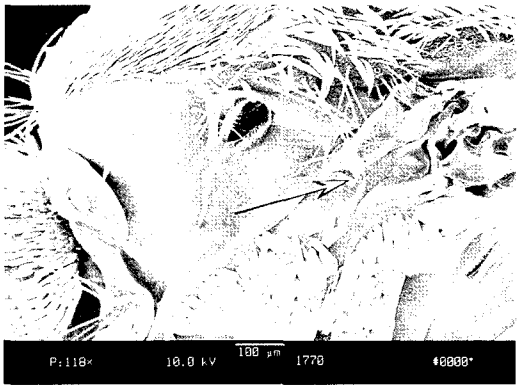
Page 61

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Thorax. Scutellum with all broad scales on midlobe

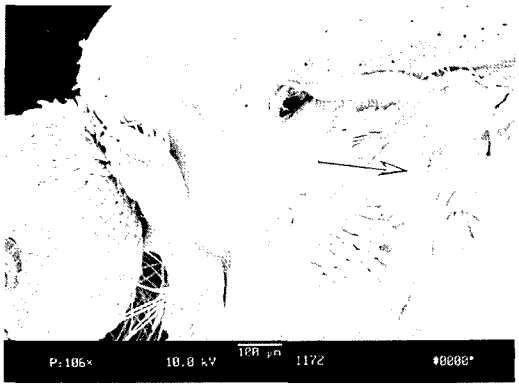


Thorax. Lower prealar scale patch present



Ochlerotatus (in part)
(*Finlaya*) in part

Thorax. Lower prealar scale patch absent

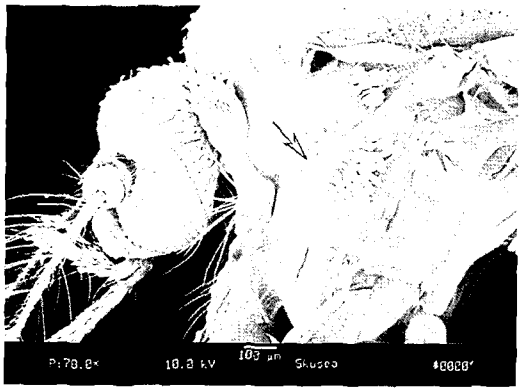


to Page 62

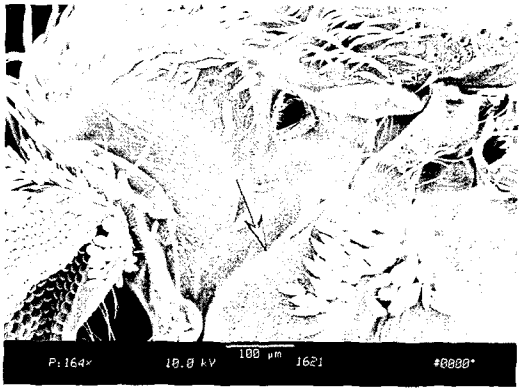
3. (continued)

Page 62

Thorax. Subspiracular area with scales



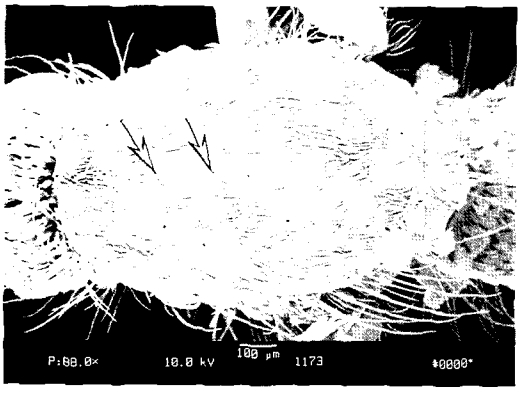
Thorax. Subspiracular area without scales



to Page 63a

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Thorax. Acrostichal setae present

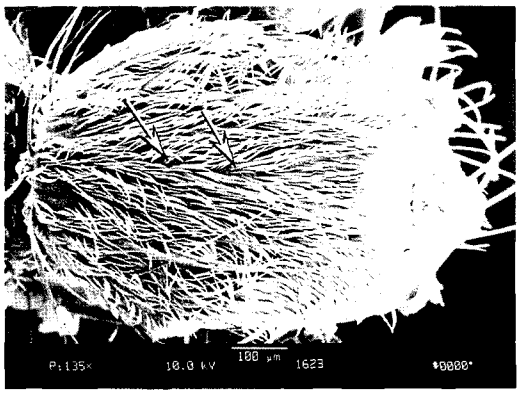


Aedes (in part)
(*Skusea*)

3. (continued)

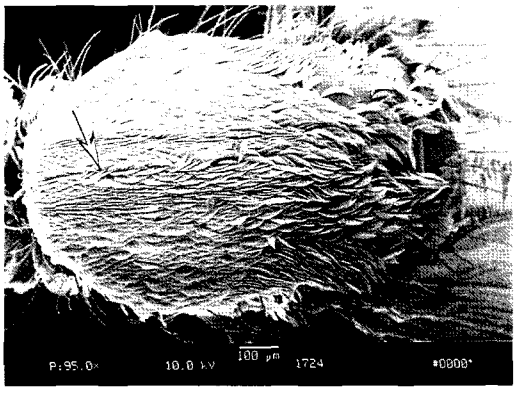
Page 63a

Thorax. Acrostichal setae present



Aedes (in part)
(*Lorrainea*) in part

Thorax. Acrostichal setae absent

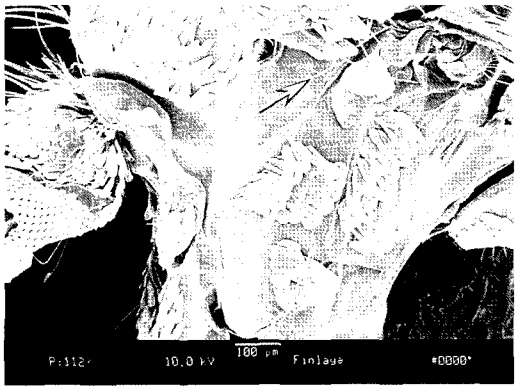


Ochlerotatus (in part)
(*Finlaya*) in part

Page 63b

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Thorax. Postspiracular setae present

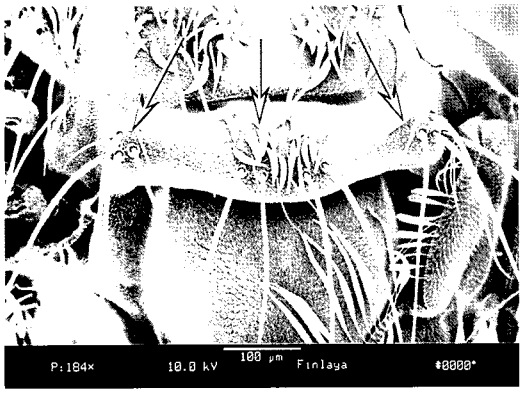


to Page 64

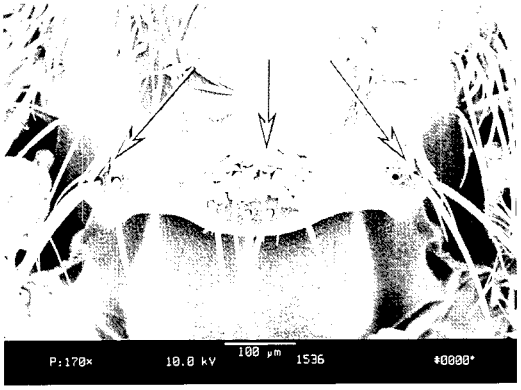
3. (continued)

Page 64

Thorax. Scutellum with all narrow scales

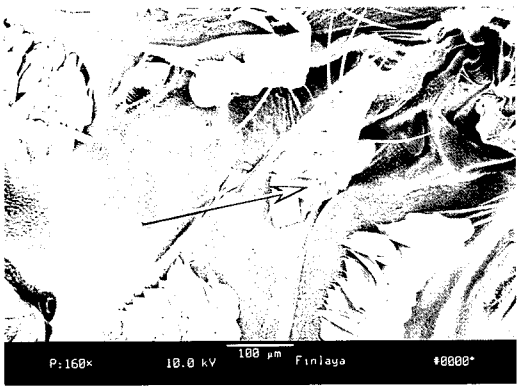


Thorax. Scutellum with all, or at least some broad scales on midlobe



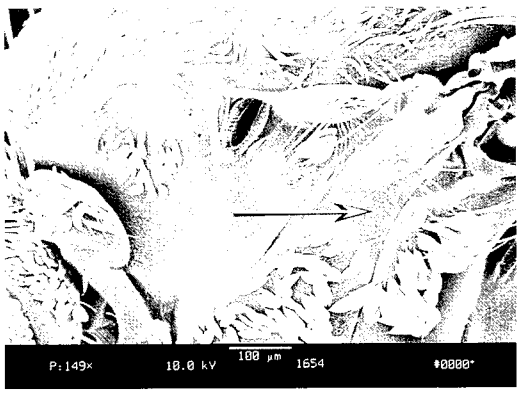
to Page 66b

Thorax. Lower prealar scale patch present



to Page 65

Thorax. Lower prealar scale patch absent

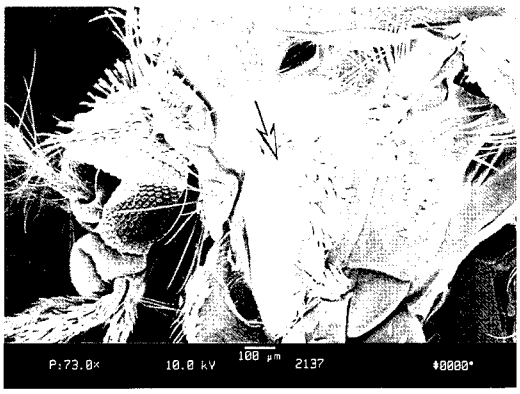


Aedes (in part)
(*Paraedes*) in part

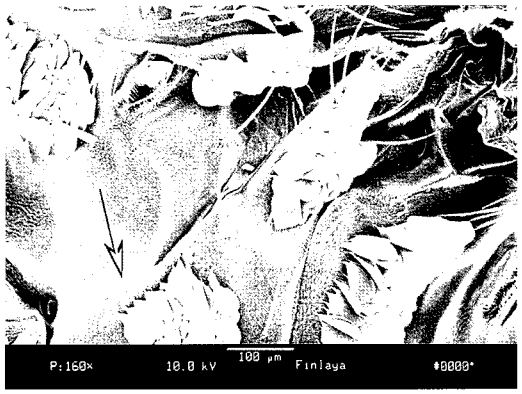
3. (continued)

Page 65

Thorax. Subspiracular area with scales

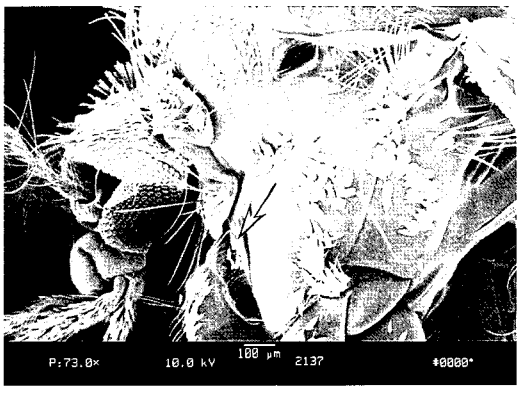


Thorax. Subspiracular area without scales



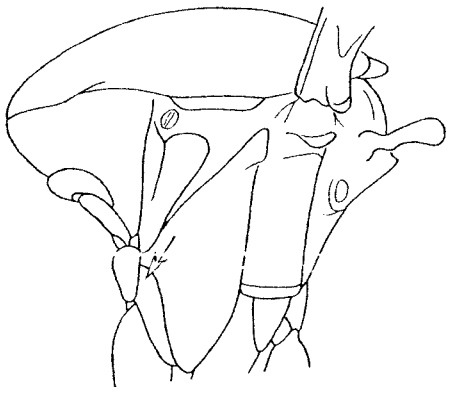
to Page 66a

Thorax. Postprocoxal membrane with scales



Ochlerotatus (in part)
Fluviatilis Group

Thorax. Postprocoxal membrane without scales



Ochlerotatus (in part)
(*Finlaya*) in part

3. (continued)

Page 66a

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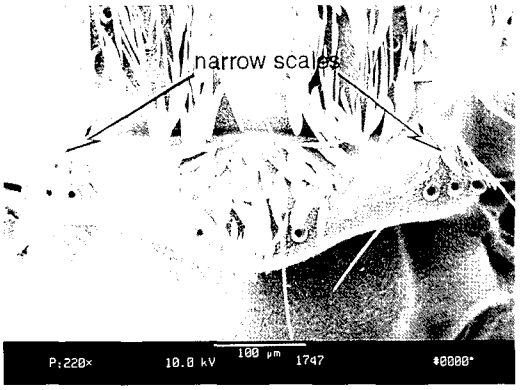
Thorax. Postprocoxal membrane without scales



Ochlerotatus (in part)
(*Finlaya*) in part

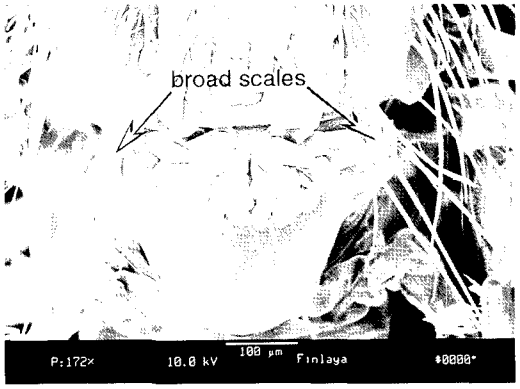
Page 66b

Thorax. Scutellum with narrow scales on lateral lobes



to Page 67

Thorax. Scutellum with all broad scales on lateral lobes



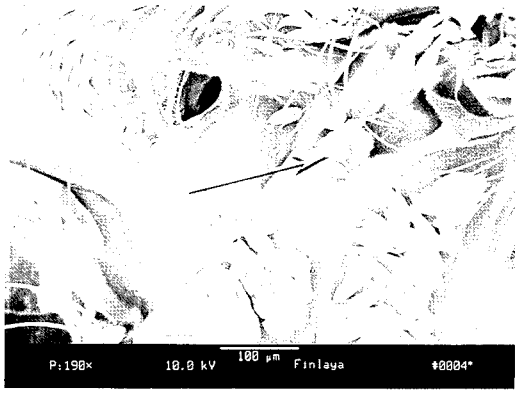
to Page 68

3. (continued)

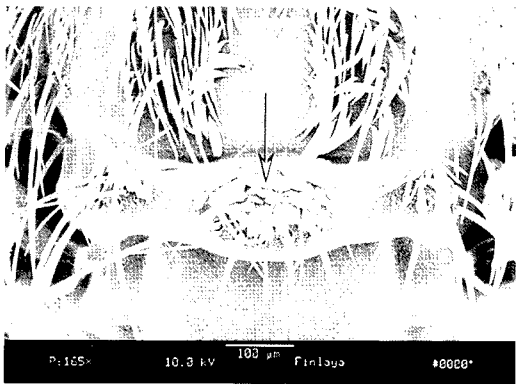
Page 67

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Thorax. Lower prealar scale patch present

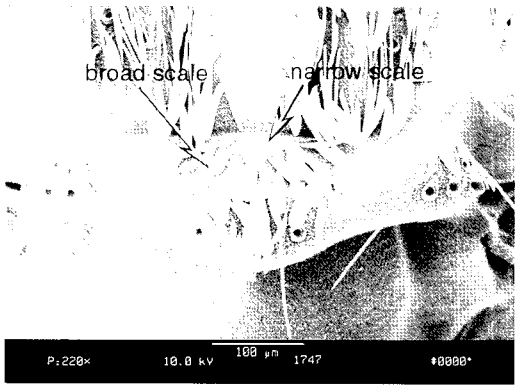


Thorax. Scutellum with all broad scales on midlobe



Ochlerotatus (in part) (*Finlaya*) in part

Thorax. Scutellum with broad and narrow scales on midlobe



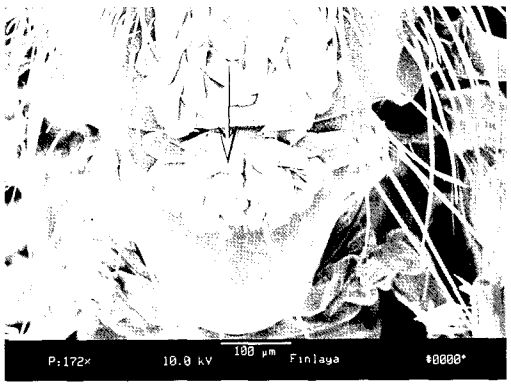
Ochlerotatus (in part) (*Howardina*) in part

3. (continued)

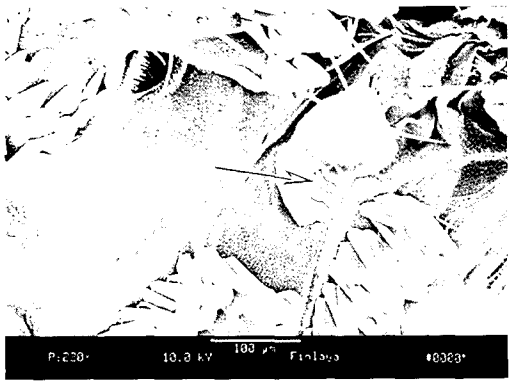
Page 68

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Thorax. Scutellum with all broad scales on midlobe

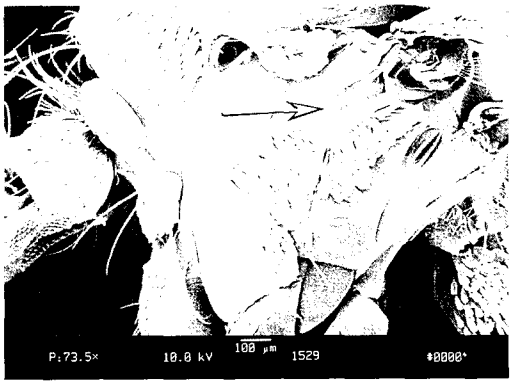


Thorax. Lower prealar scale patch present



Ochlerotatus (in part)
(*Zavortinkius*)

Thorax. Lower prealar scale patch absent

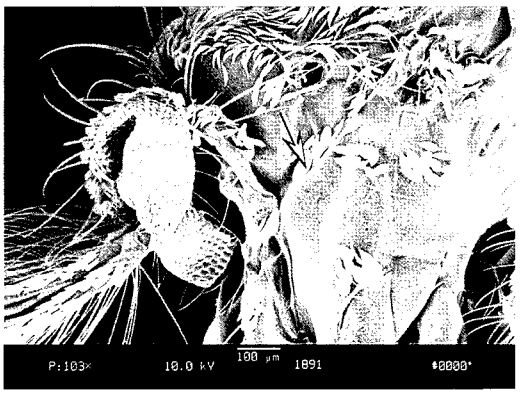


to Page 69a

3. (continued)

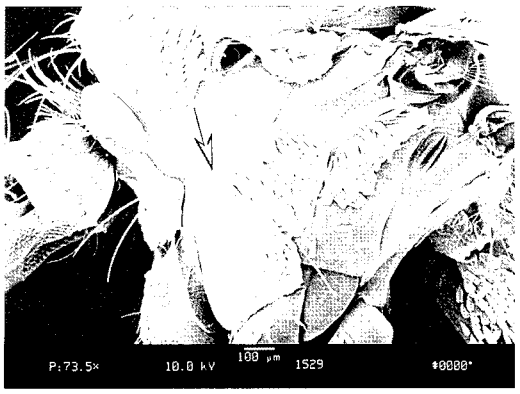
Page 69a

Thorax. Subspiracular area with scales



Aedes (in part)
(*Diceromyia*) in part

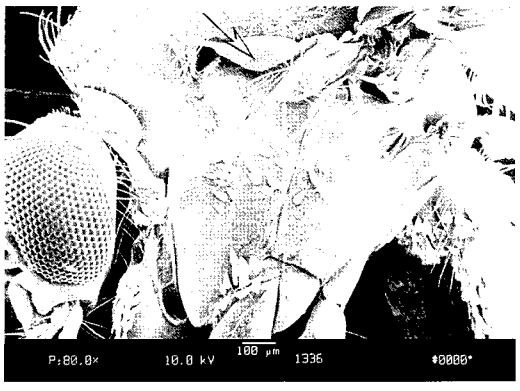
Thorax. Subspiracular area without scales



Ochlerotatus (in part)
(*Kenknightia*)

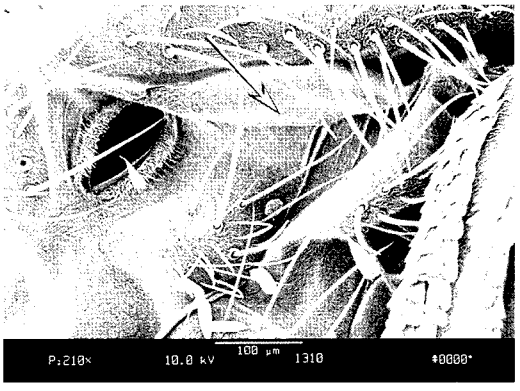
Page 69b

Thorax. Paratergite without scales



to Page 70

Thorax. Paratergite with scales



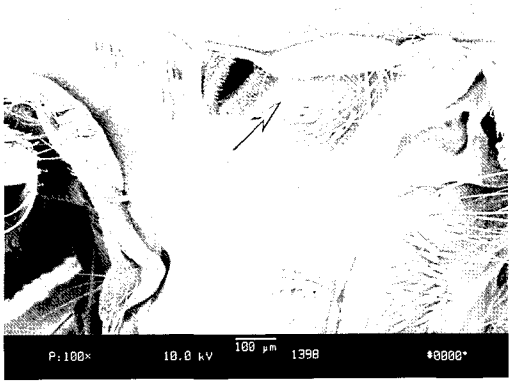
to Page 81b

3. (continued)

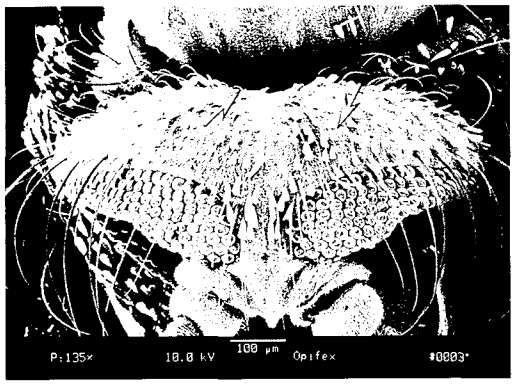
Page 70

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Thorax. Postspiracular setae present



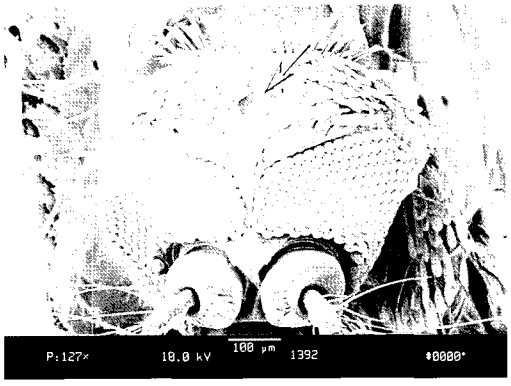
Head. Vertex and occiput: with numerous short setae



Opifex

Opifex fuscus

Head. Vertex and occiput without numerous short setae



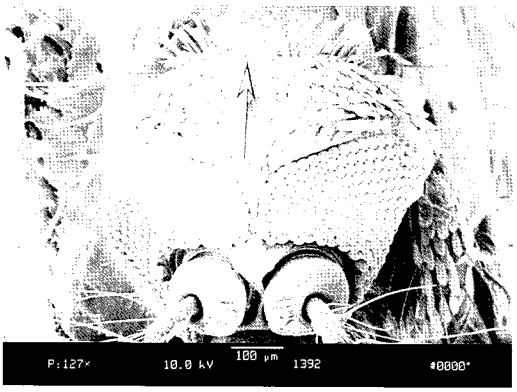
to Page 71

3. (continued)

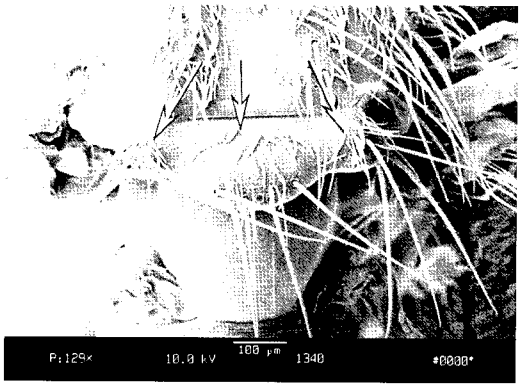
Page 71

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Head. Vertex with erect forked scales not numerous, restricted to occiput

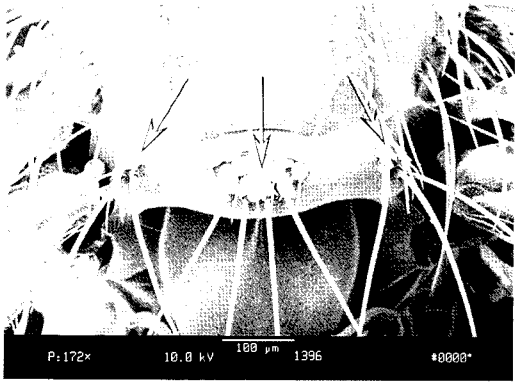


Thorax. Scutellum with all narrow scales



to Page 72

Thorax. Scutellum with all, or at least some broad scales on midlobe



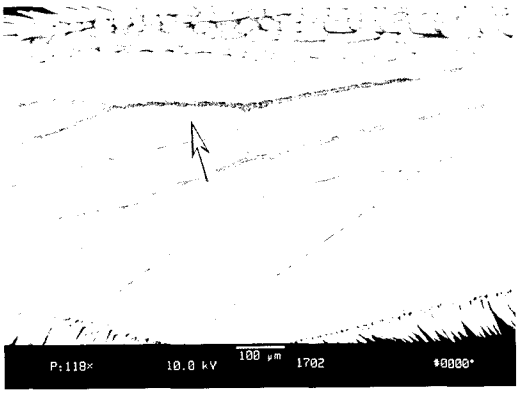
to Page 73b

3. (continued)

Page 72

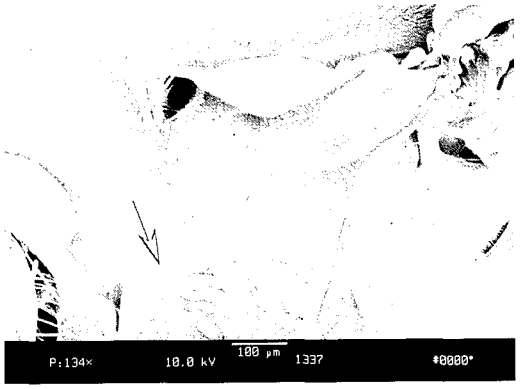
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Wing. Plume scales all narrow



**

Thorax. Subspiracular area without scales

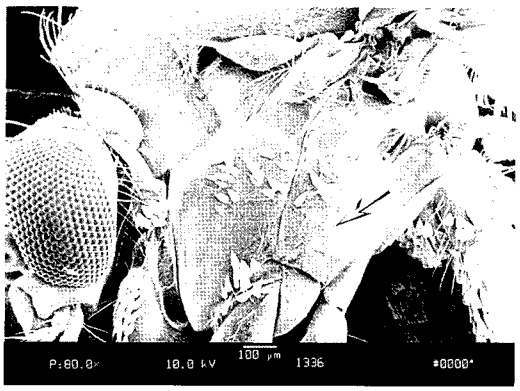


to Page 73a

3. (continued)

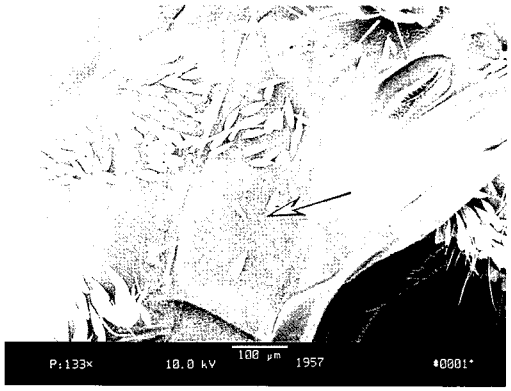
Page 73a

Thorax. Lower mesepimeral area with a patch of fine setae



Verrallina (in part)

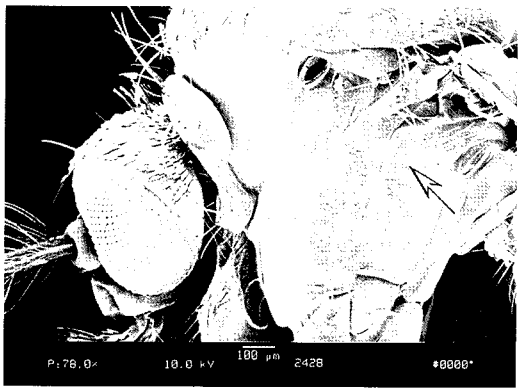
Thorax. Lower mesepimeral area without a patch of fine setae



Verrallina (in part)

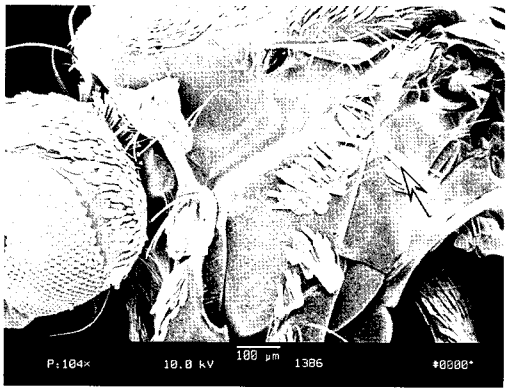
Page 73b

Thorax. Mesepimeron without scale patch



to Page 74

Thorax. Mesepimeron with scale patch



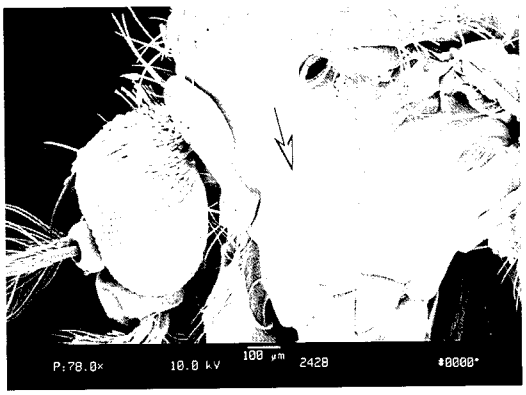
to Page 76

3. (continued)

Page 74

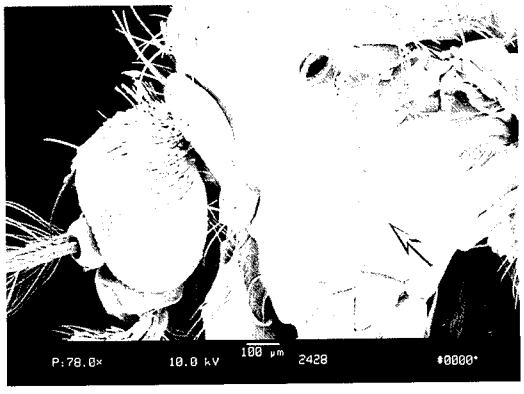
**

Thorax. Subspiracular area without scales



**

Thorax. Lower mesepimeral setae absent



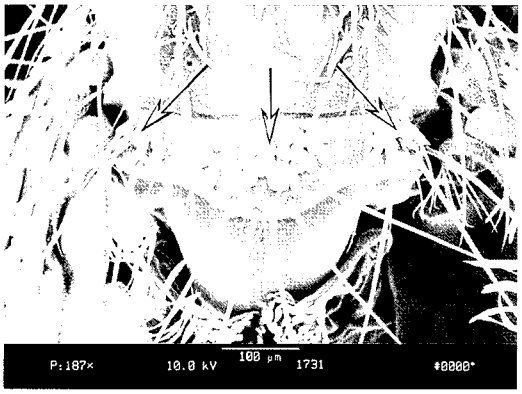
to Page 75

3. (continued)

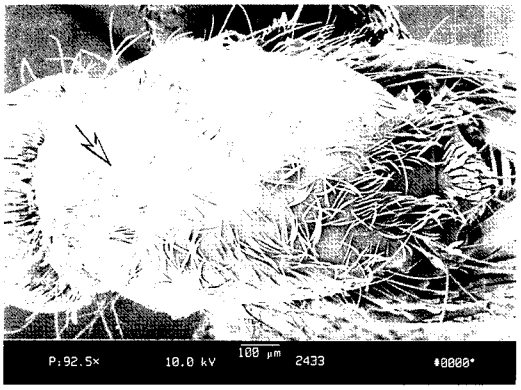
Page 75

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Thorax. Scutellum with all broad flat scales

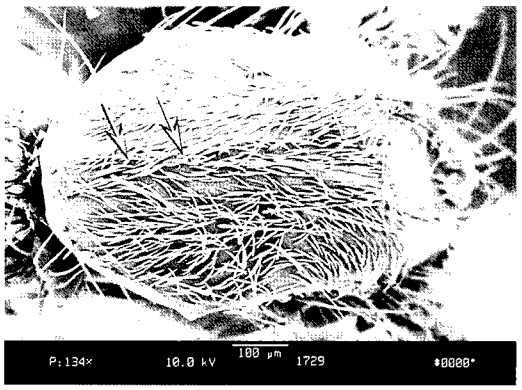


Throax. Acrostichal setae absent



Aedes hortator

Thorax. Acrostichal setae present

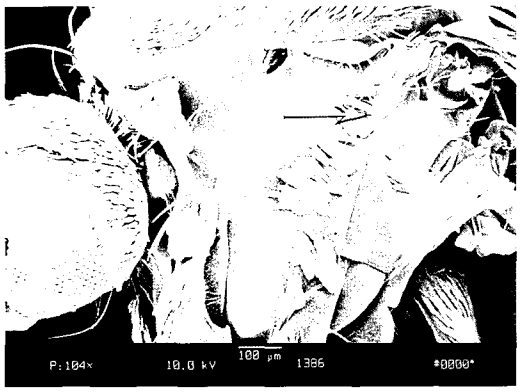


Ochlerotatus (in part) (*Rhinoskusea*)

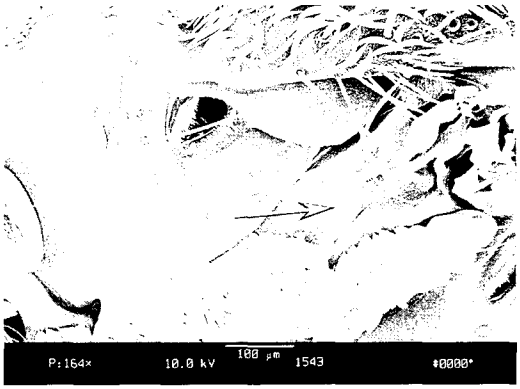
3. (continued)

Page 76

Thorax. Lower prealar scale patch present



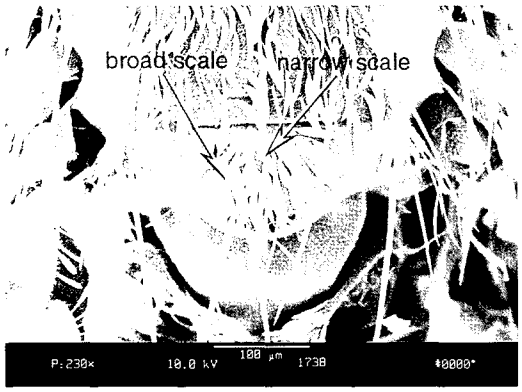
Thorax. Lower prealar scale patch absent



to Page 77

**

Thorax. Scutellum with narrow scales in middle, and with broad flat scales laterally on midlobe



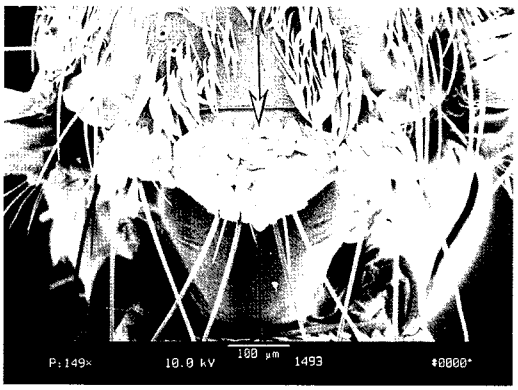
Ochlerotatus (in part)
(*Howardina*) in part

3. (continued)

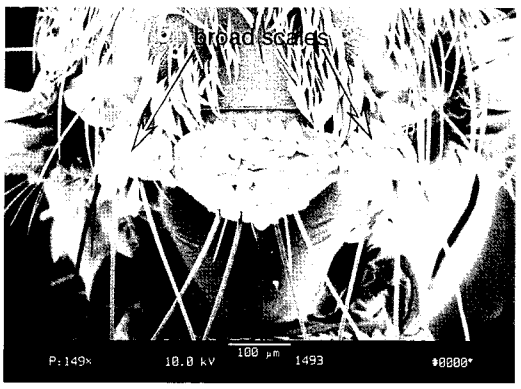
Page 77

**

Thorax. Scutellum with all broad scales on midlobe

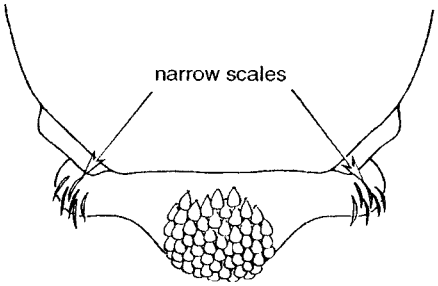


Thorax. Scutellum with all broad scales on lateral lobes



to Page 78

Thorax. Scutellum with all narrow curved scales on lateral lobes



to Page 81a

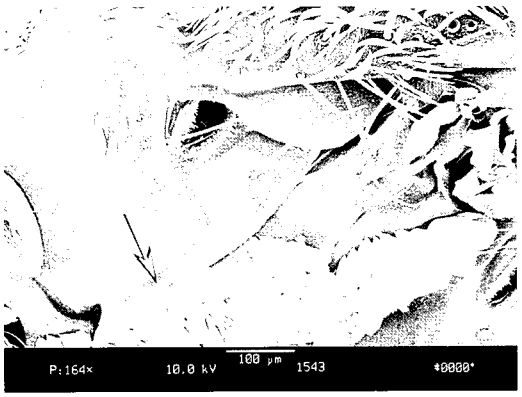
3. (continued)

Page 78

Thorax. Subspiracular area with scales



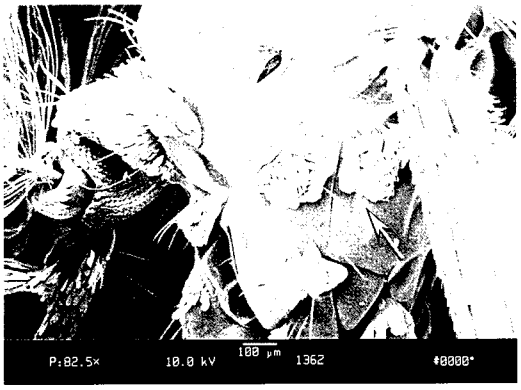
Thorax. Subspiracular area without scales



to Page 79

**

Thorax. Lower mesepimeral setae absent

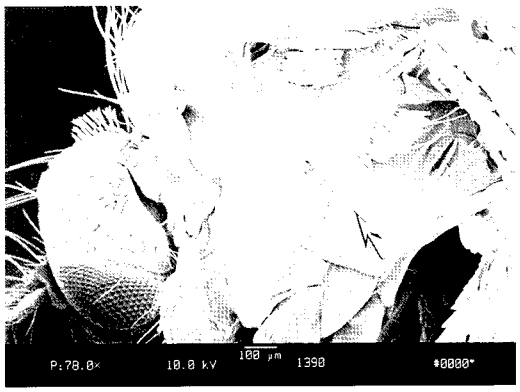


Aedes (in part)
(*Stegomyia*) in part

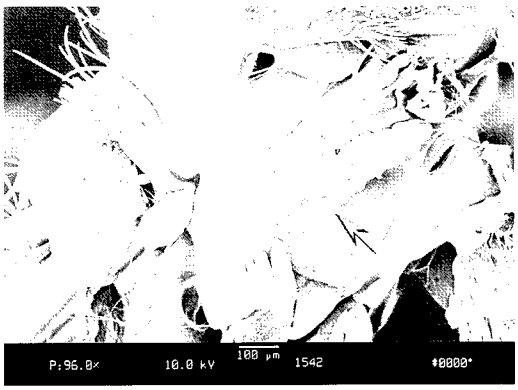
3. (continued)

Page 79

Thorax. Lower mesepimeral setae present

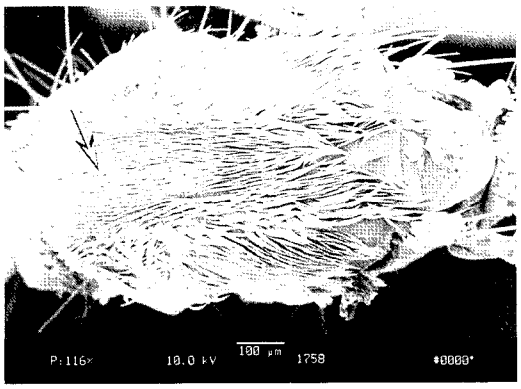


Thorax. Lower mesepimeral setae absent



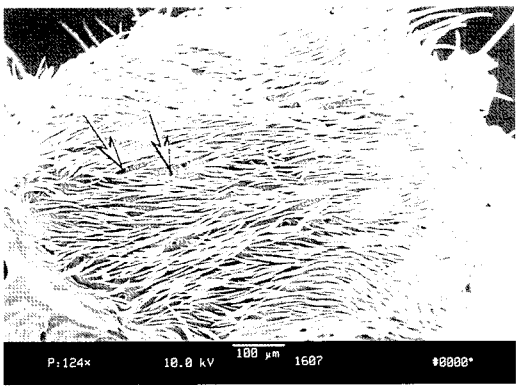
Aedes (in part)
(*Bothaella*)

Thorax. Acrostichal setae absent



to Page 80a

Thorax. Acrostichal setae present



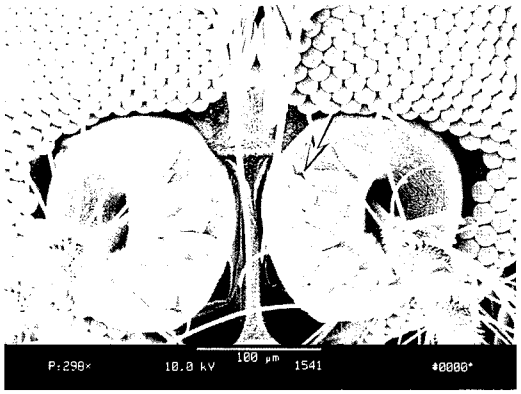
to Page 80b

3. (continued)

Page 80a

**

Head. Pedicel with a patch of white broad overlapping scales on mesal surface

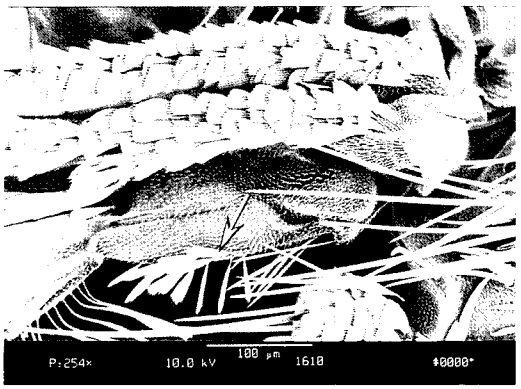


Aedes (in part)
(*Scutomyia*)

Page 80b

**

Wing. Alula with a few broad decumbent scales in addition to the fringe scales

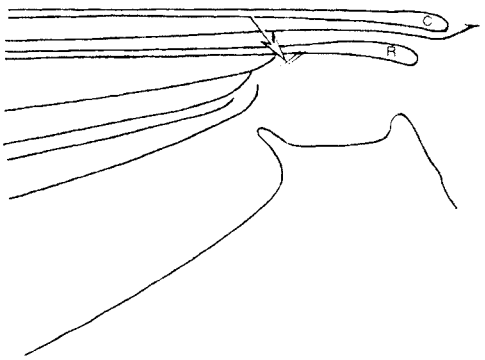


Aedes (in part)
(*Lorrainea*) in part

3. (continued)

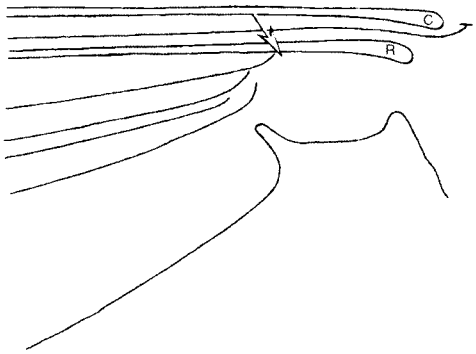
Page 81a

Wing. Remigial setae present



Aedes (in part)
(*Diceromyia*) in part

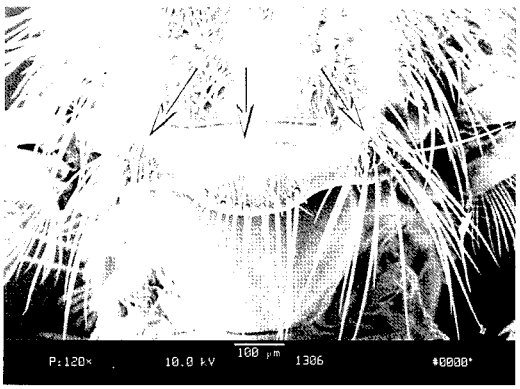
Wing. Remigial setae absent



Aedes (in part)
(*Indusius*) *pulverulentus*

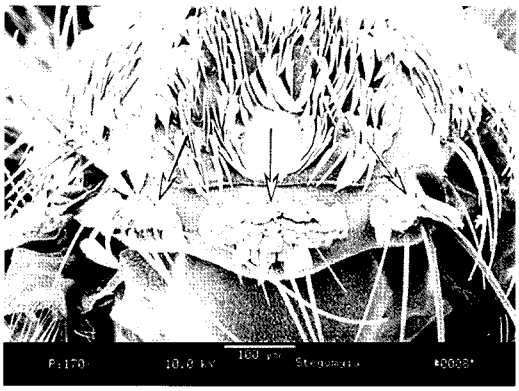
Page 81b

Thorax. Scutellum with all narrow scales



to Page 82

Thorax. Scutellum with all, or at least some broad scales on midlobe

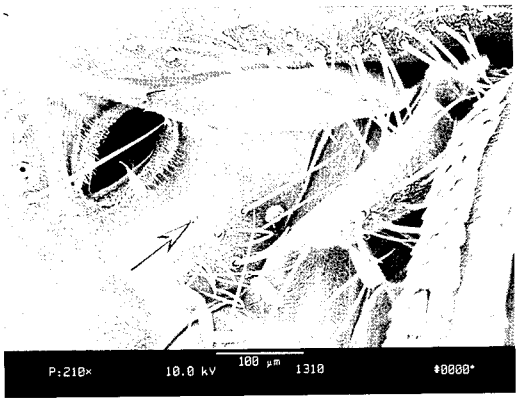


to Page 83

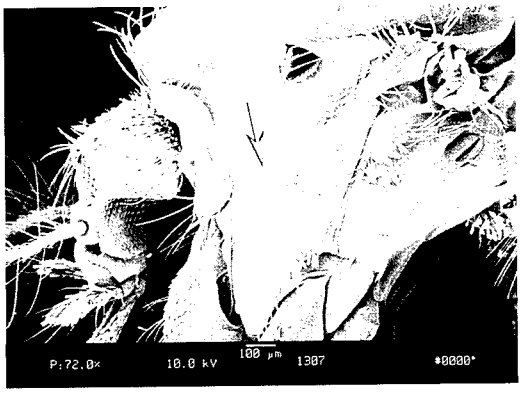
3. (continued)

Page 82

**
Thorax. Postspiracular setae present



**
Thorax. Subspiracular area without scales

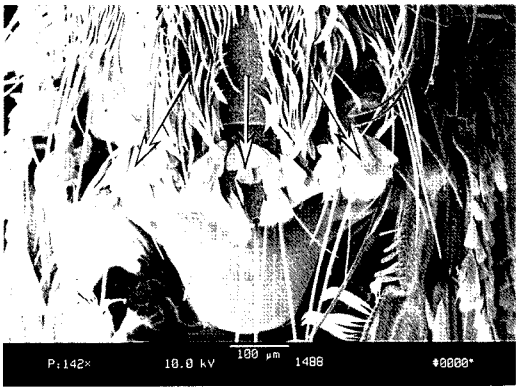


Verrallina (in part)

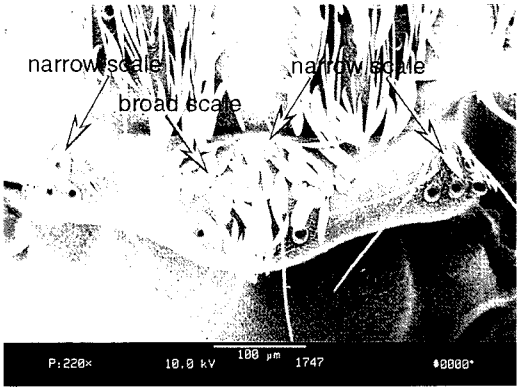
3. (continued)

Page 83

Thorax. Scutellum with all broad scales



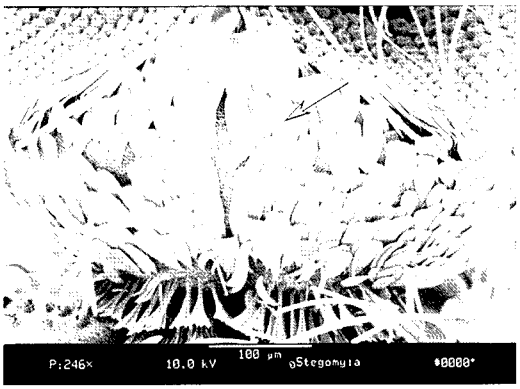
Thorax. Scutellum with broad and narrow scales on midlobe, and with narrow scales on lateral lobes



to Page 86b

**

Head. Vertex with all broad, flat decumbent scales

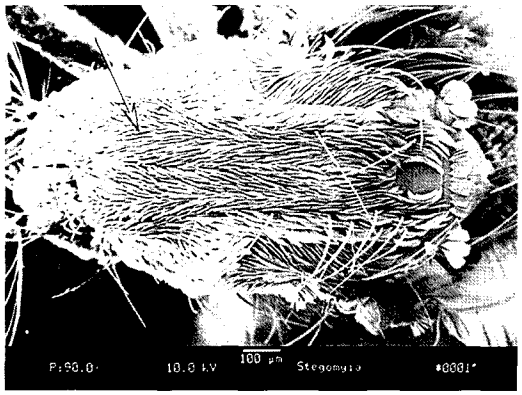


to Page 84

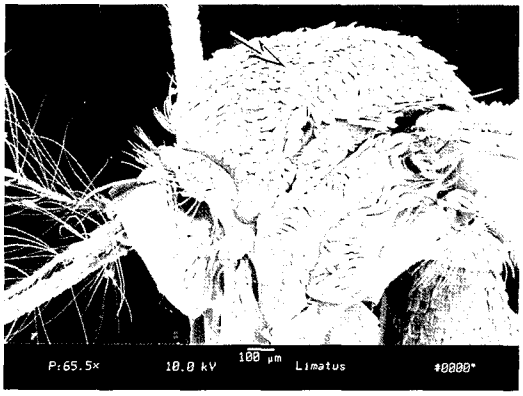
3. (continued)

Page 84

Thorax. Scutum with all, or mainly narrow scales

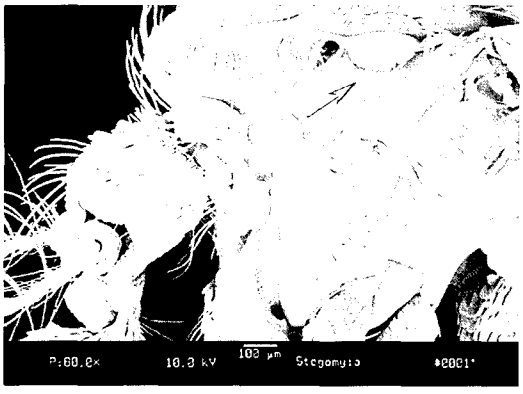


Thorax. Scutum with all broad or moderately broad flat scales



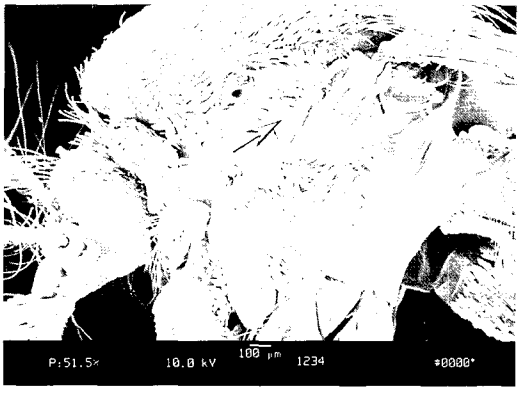
to Page 91

Thorax. Postspiracular setae present



to Page 85

Thorax. Postspiracular setae absent

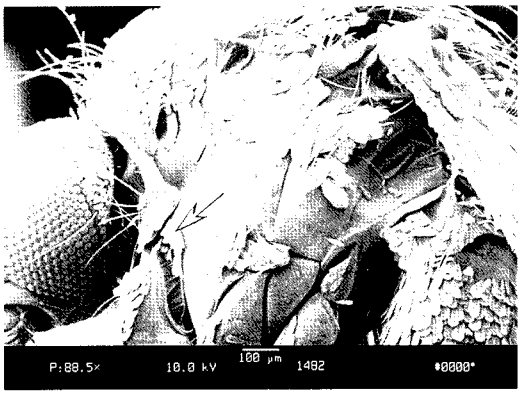


Armigeres (in part)

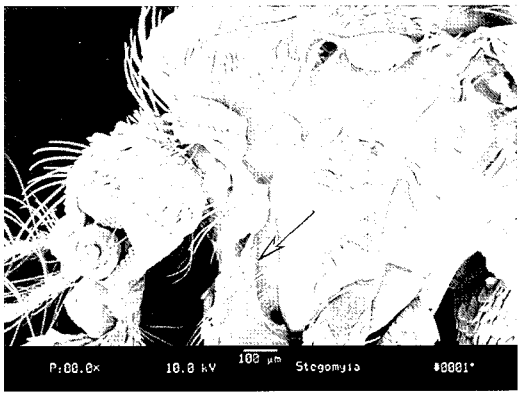
3. (continued)

Page 85

Thorax. Postprocoxal membrane with scales

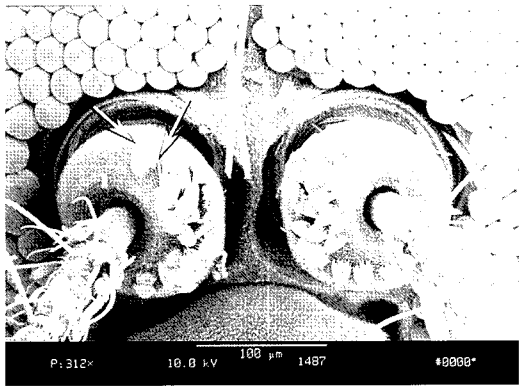


Thorax. Postprocoxal membrane without scales



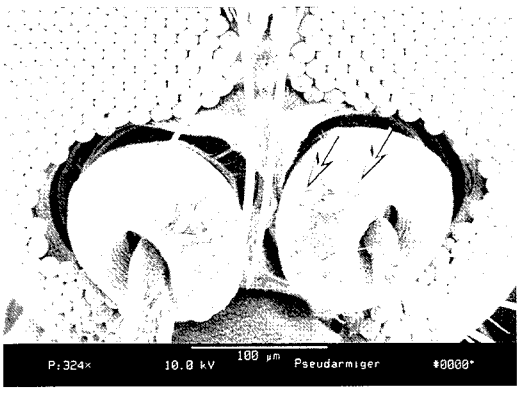
to Page 87

Head. Pedicel with a few setae mixed with broad scales on mesal surface



to Page 86a

Head. Pedicel with setae and scales on mesal surface



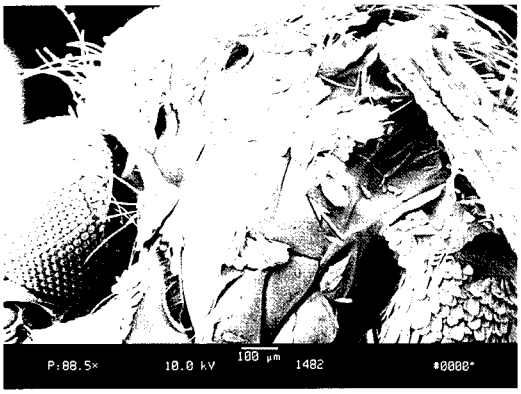
Aedes (in part)
(*Pseudarmigeres*)

3. (continued)

Page 86a

** |

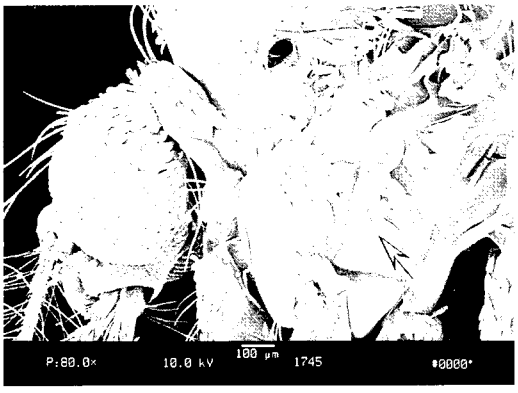
Thorax. Lower mesepimeral setae present



Aedes (in part)
(*Christophersiomyia*)

** 2

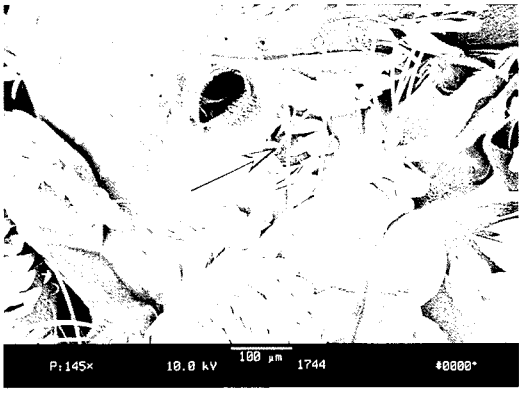
Thorax. Lower mesepimeral setae absent



Page 86b

** 1 |

Thorax. Postspiracular setae present



** 3

Thorax. Lower prealar scale patch present

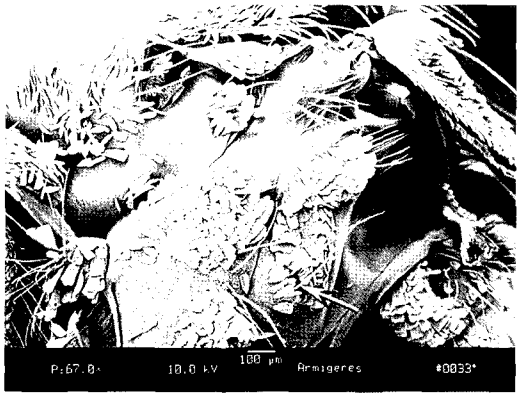


Ochlerotatus (in part)
(*Howardina*) in part

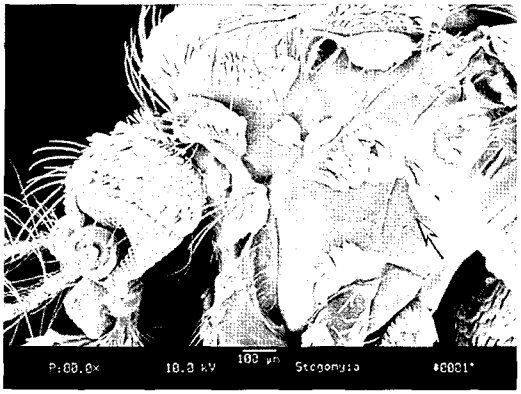
3. (continued)

Page 87

Thorax. Lower mesepimeral setae present

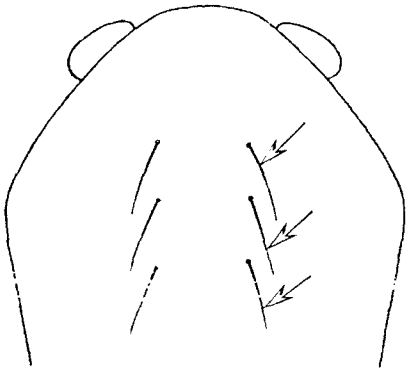


Thorax. Lower mesepimeral setae absent



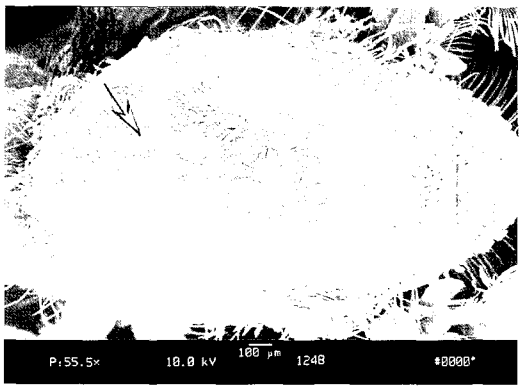
to Page 88c

Thorax. Dorsocentral setae present



to Page 88a

Thorax. Dorsocentral setae absent

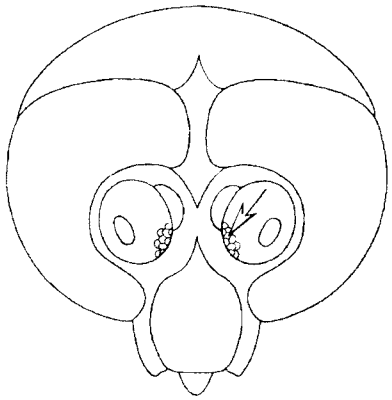


to Page 88b

3. (continued)

Page 88a

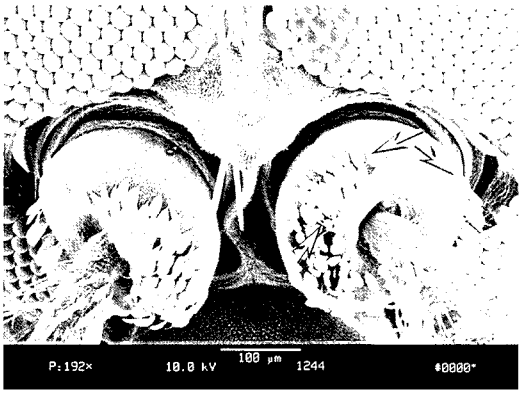
**
Head. Pedicel with a small patch of white broad overlapping scales on mesal surface



Aedes (in part)
(*Stegomyia*) in part

Page 88b

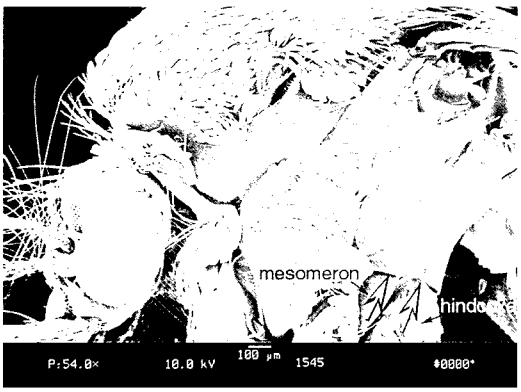
**
Head. Pedicel with a few setae mixed with white broad scales on mesal and lateral surfaces



Armigeres (in part)

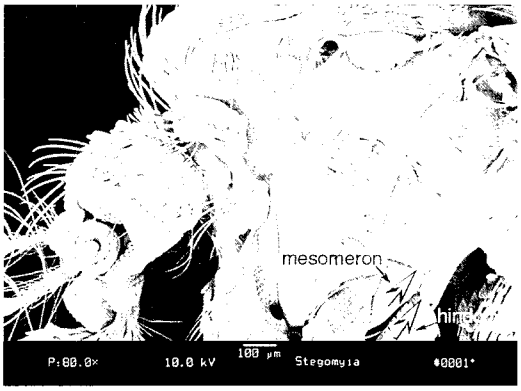
Page 88c

Thorax. Base of mesomeron level with, or slightly above base of hindcoxa



to Page 89

Thorax. Base of mesomeron distinctly above base of hindcoxa

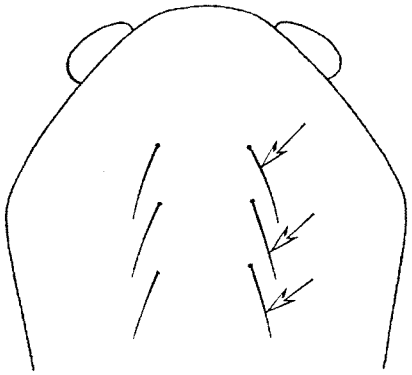


to Page 90b

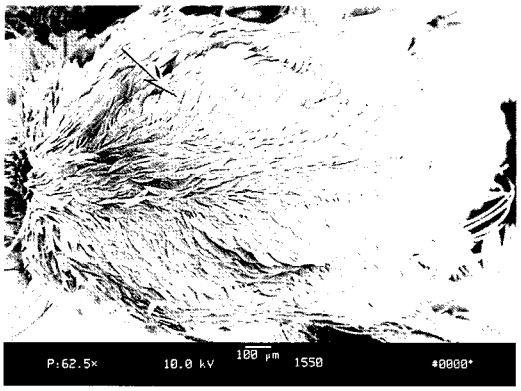
3. (continued)

Page 89

Thorax. Dorsocentral setae present



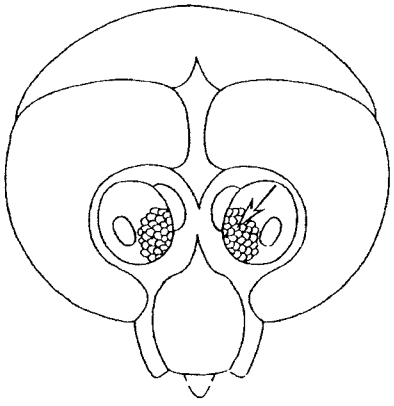
Thorax. Dorsocentral setae absent



to Page 90a

**

Head. Pedicel with a large patch of broad scales on mesal surface

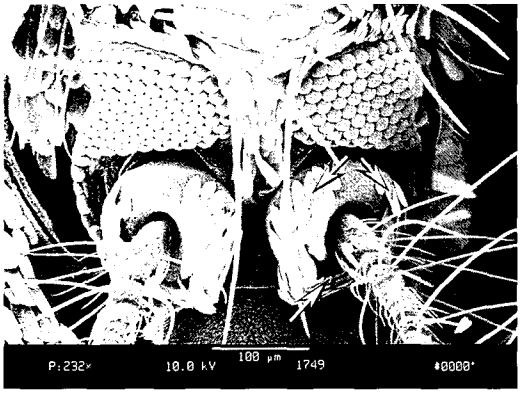


Aedes (in part)
(*Belkinius*) *aurotaeniatus*

3. (continued)

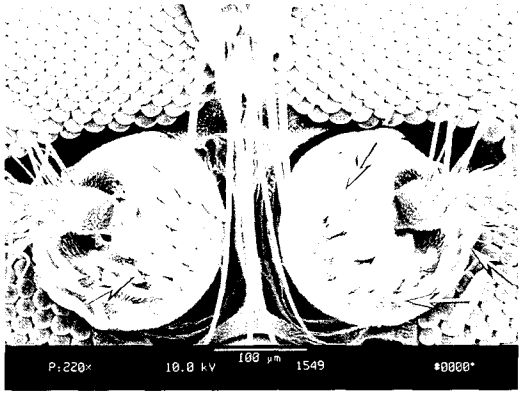
Page 90a

Head. Pedicel with white broad overlapping scales on mesal, ventral and lateral surfaces



Aedes (in part)
(*Stegomyia*) in part

Head. Pedicel with a few setae mixed with white broad scales on mesal, ventral and lateral surfaces

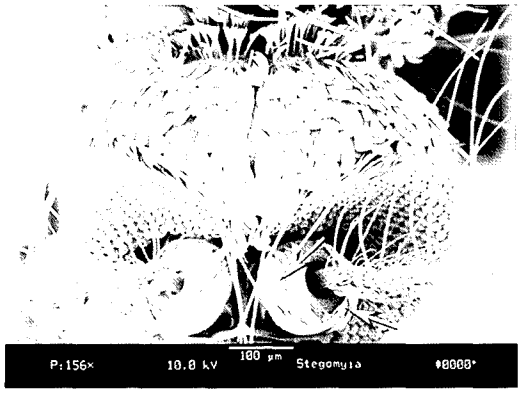


Aedes (in part)
(*Alanstonea*)

Page 90b

**

Head. Pedicel with white broad overlapping scales on mesal and lateral surfaces



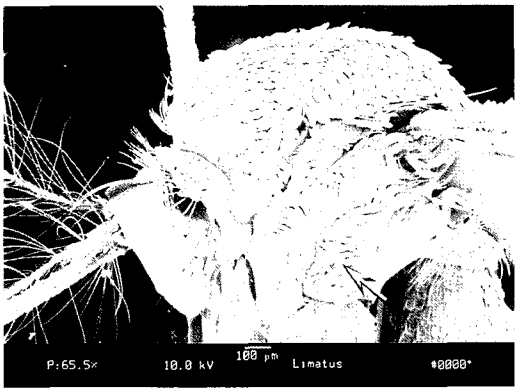
Aedes (in part)
(*Stegomyia*) in part

3. (continued)

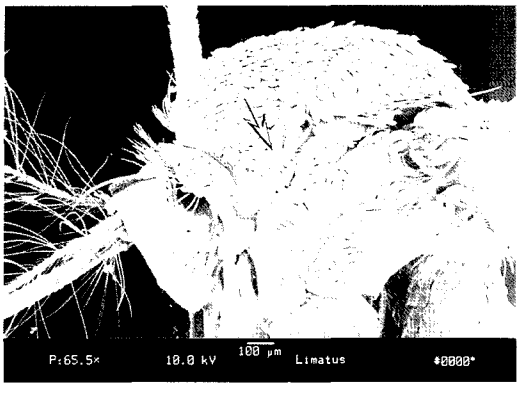
Page 91

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Thorax. Lower mesepimeral setae absent

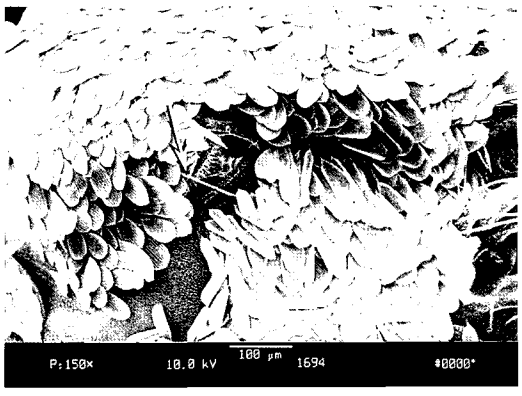


Thorax. Postpronotal setae absent



Limatus

Thorax. Postpronotal setae present

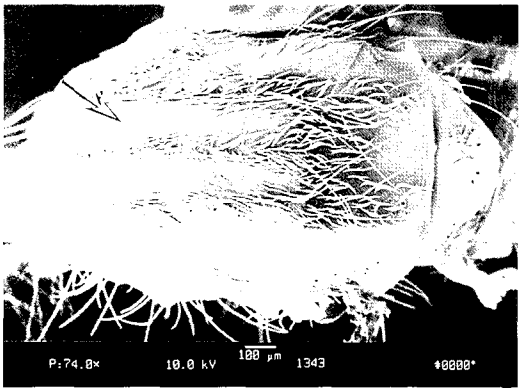


Haemagogus

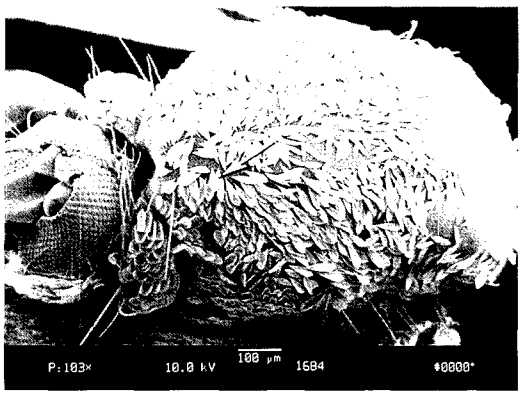
3. (continued)

Page 92

Thorax. Scutum with all, or mainly narrow scales

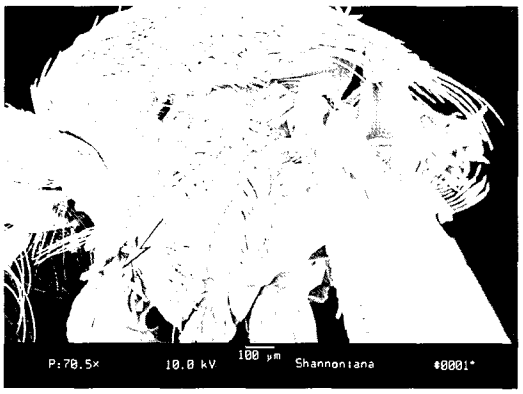


Thorax. Scutum with all broad flat scales



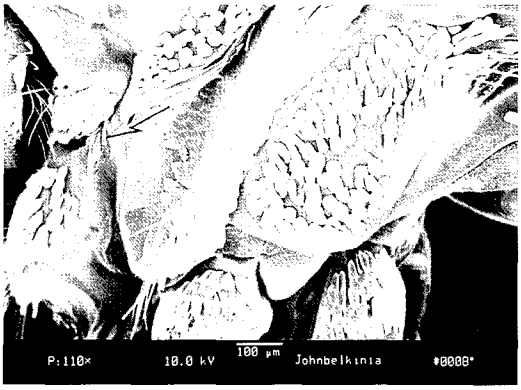
to Page 96

Thorax. Postprocoxal membrane with scales



to Page 93

Thorax. Postprocoxal membrane without scales

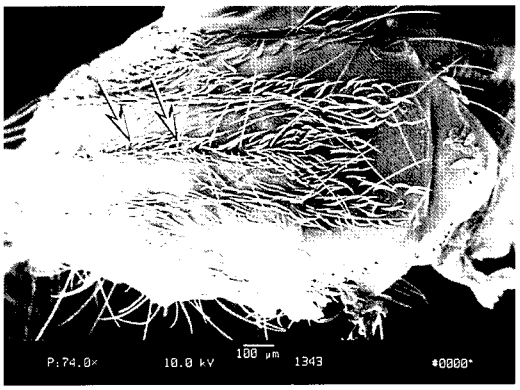


to Page 95

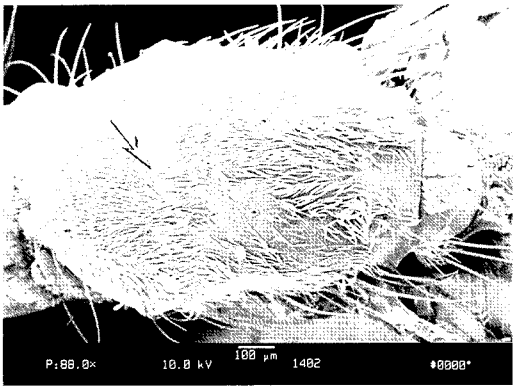
3. (continued)

Page 93

Thorax. Acrostichal setae present

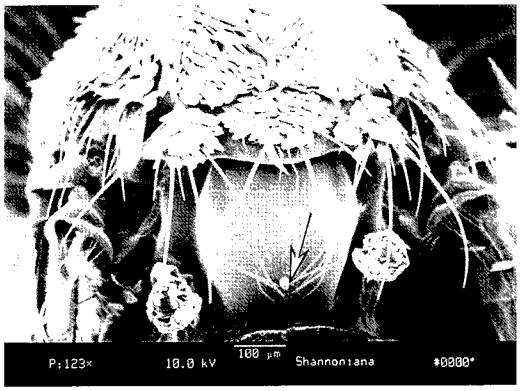


Thorax. Acrostichal setae absent



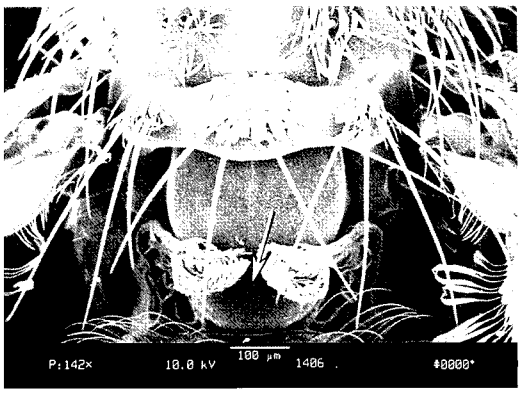
Maorigoeldia

Thorax. Mesopostnotal setae present



to Page 94a

Thorax. Mesopostnotal setae absent

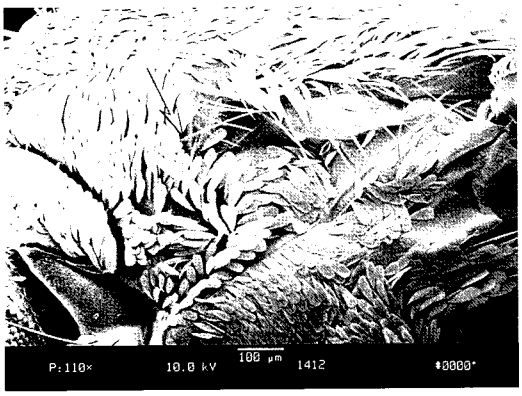


to Page 94b

3. (continued)

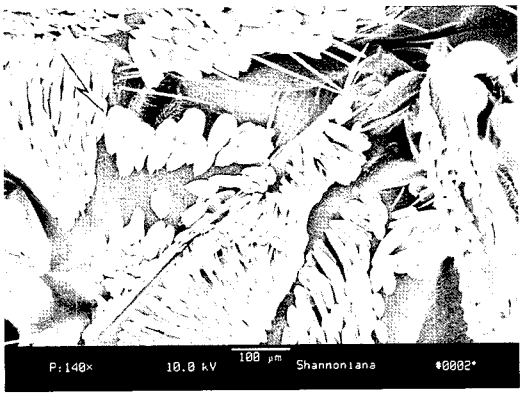
Page 94a

Thorax. Postpronotal setae present



Tripteroides (in part)

Thorax. Postpronotal setae absent

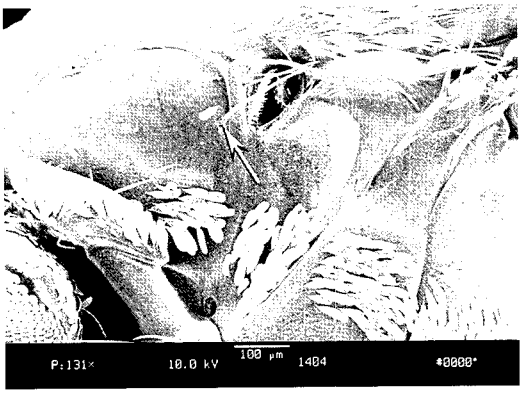


Shannoniana

Page 94b

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Thorax. Postpronotal setae present

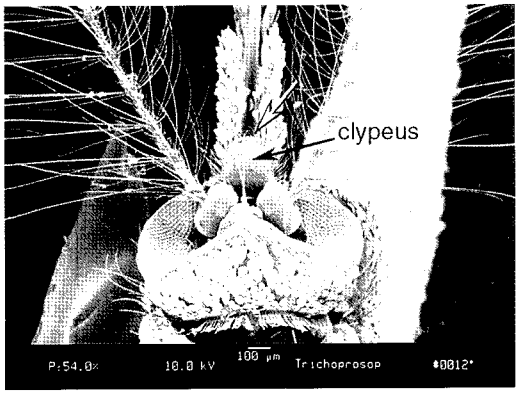


Tripteroides (in part)

3. (continued)

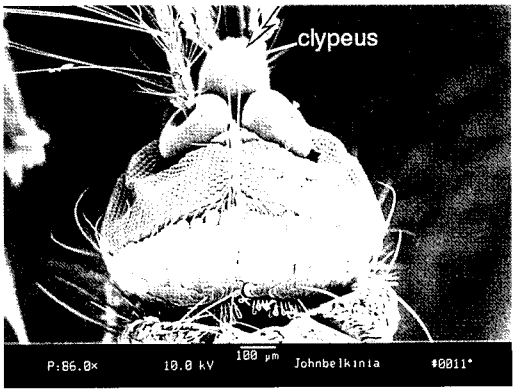
Page 95

Head. Clypeus with conspicuous setulae

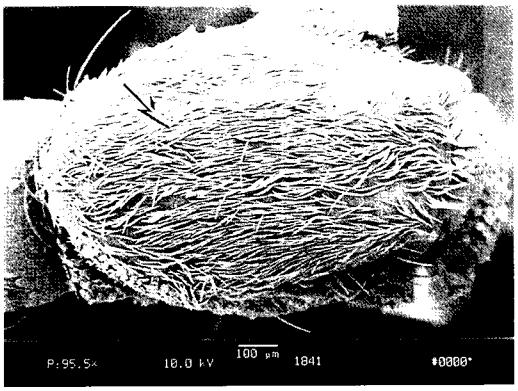


Trichoprosopon

Head. Clypeus without conspicuous setulae

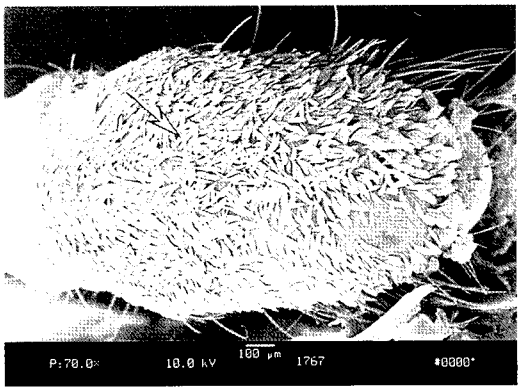


Thorax. Scutum with very narrow scales



Runchomyia

Thorax. Scutum with much broader scales

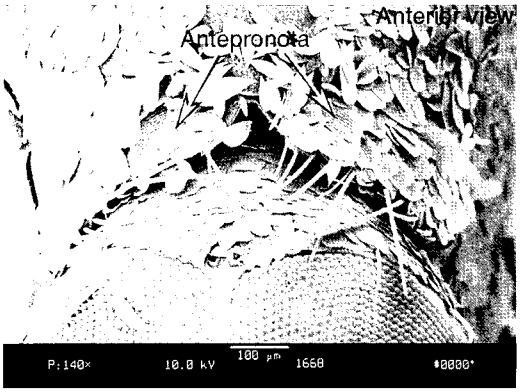


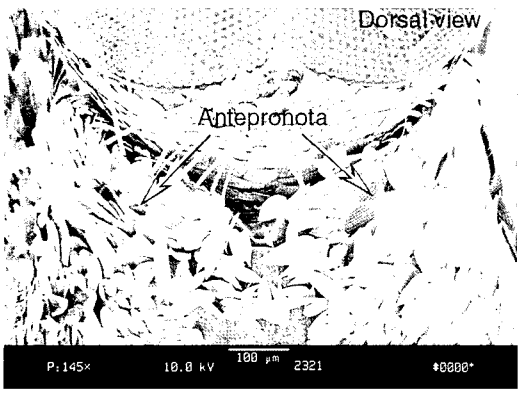
Johnbelkinia

3. (continued)

Page 96

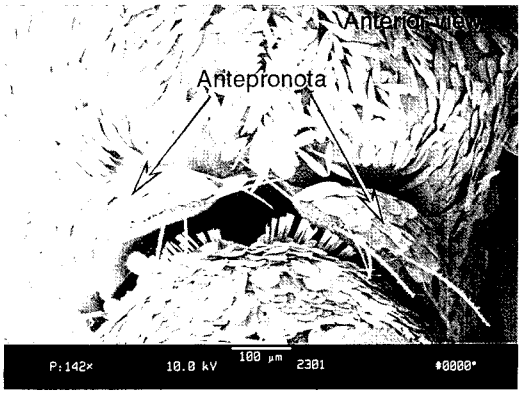
Thorax. Antepronota large, almost touching middorsally

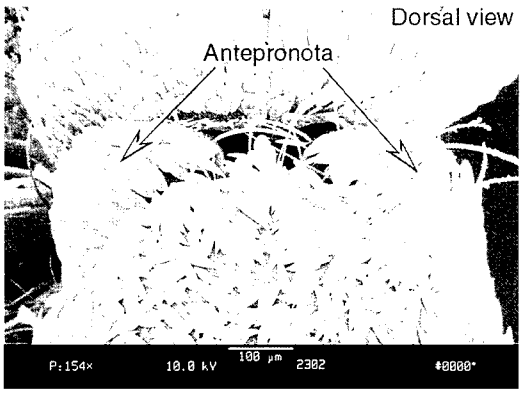




to Page 97

Thorax. Antepronota large or small, widely separated middorsally





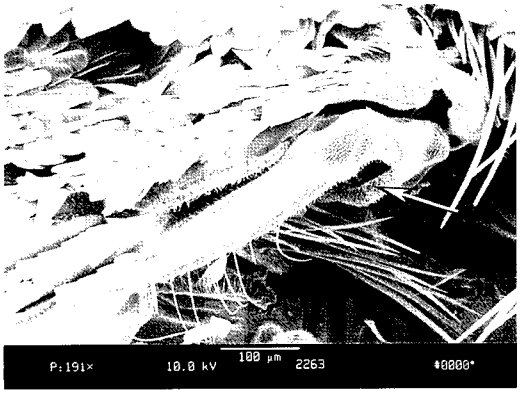
to Page 99

3. (continued)

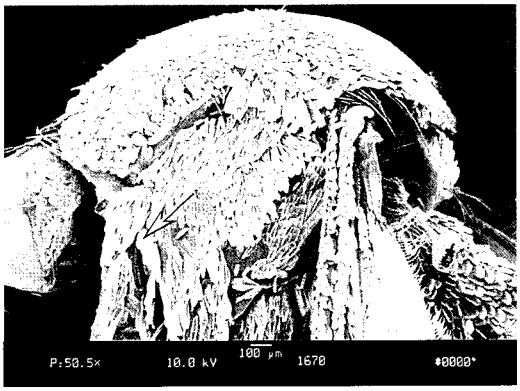
Page 97

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Wing. Upper calypter not fringed

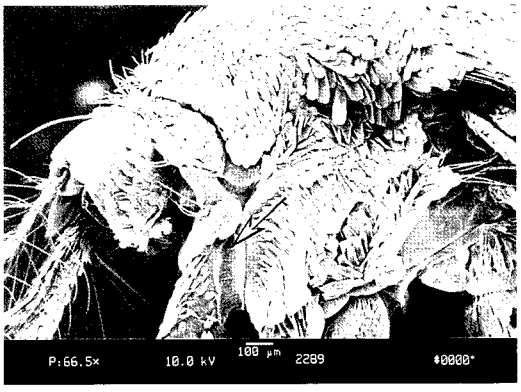


Thorax. Postprocoxal membrane with scales



to Page 98a

Thorax. Postprocoxal membrane without scales

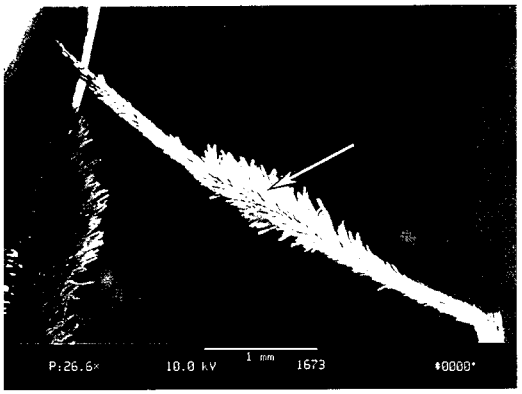


to Page 98b

3. (continued)

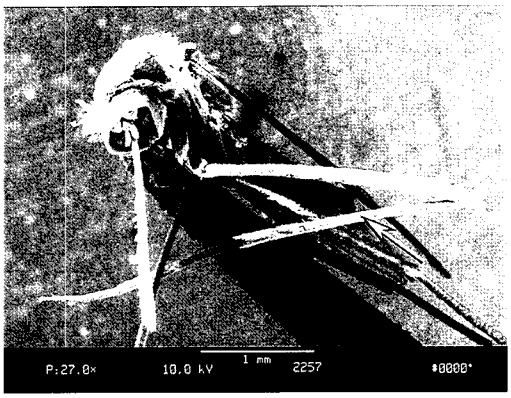
Page 98a

Leg. Fore-tibia with paddle of erect scales



Sabethes (in part)

Leg. Fore-tibia without paddle of erect scales

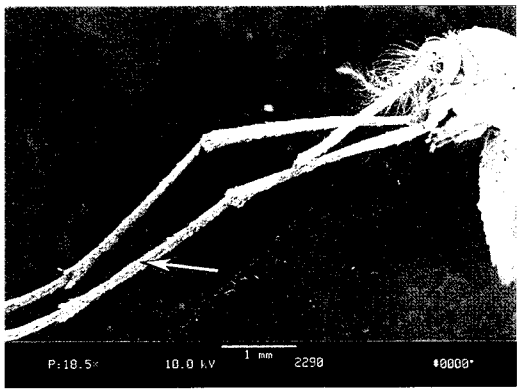


Sabethes (in part)

Page 98b

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Leg. Fore-tibia without paddle of erect scales

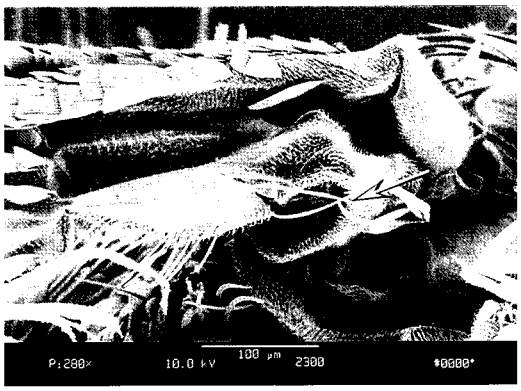


Sabethes (in part)

3. (continued)

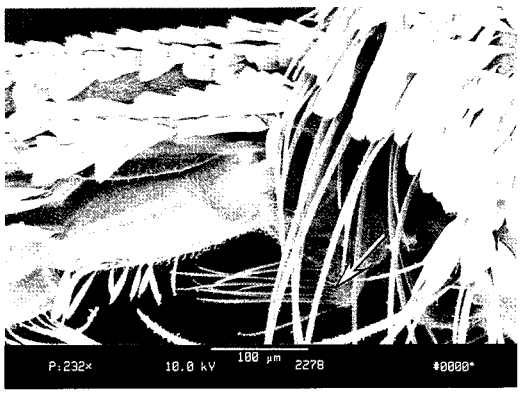
Page 99

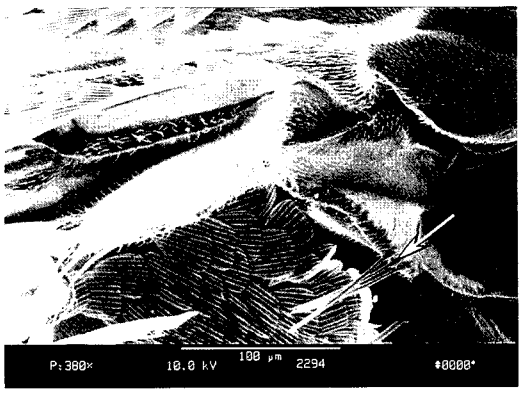
Wing. Upper calypter not fringed, or with only a few (1-3) setae near alula



to Page 100

Wing. Upper calypter fringed with hair-like setae, or with 3-4 setae far from alula



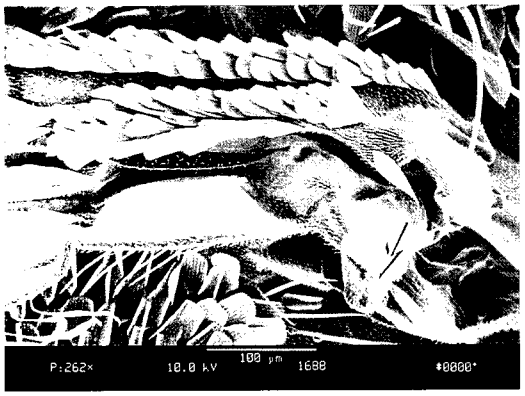


Isostomyia

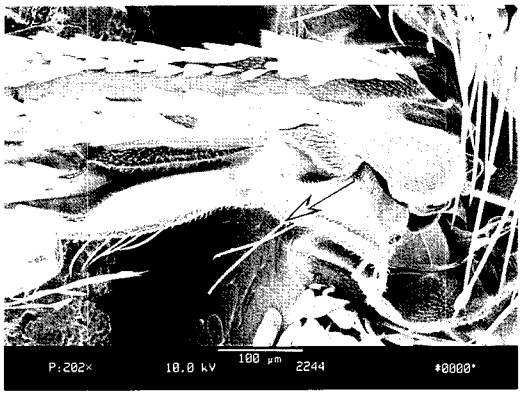
3. (continued)

Page 100

Wing. Upper calypter not fringed



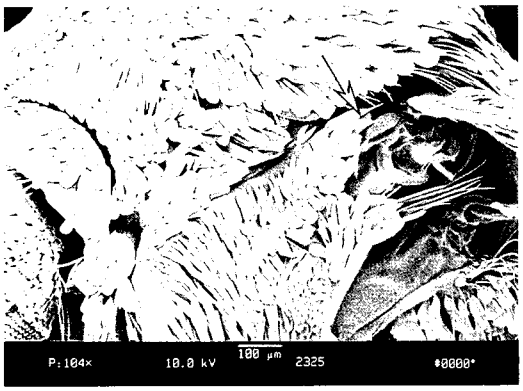
Wing. Upper calypter with few (1-3) setae near alula



Wyeomyia (in part)
Onirion

**

Thorax. Prealar setae present

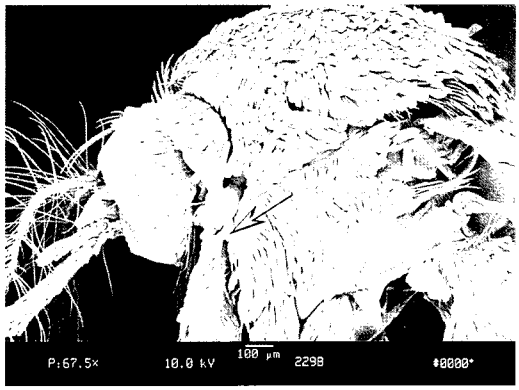


to Page 101

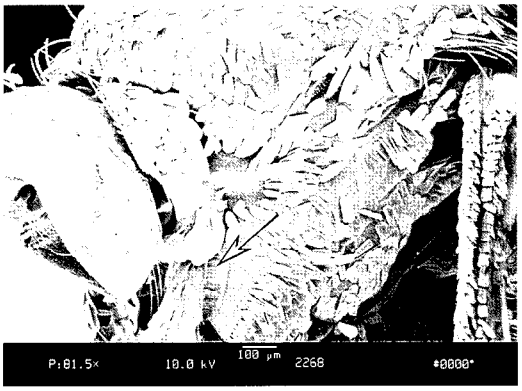
3. (continued)

Page 101

Thorax. Postprocoxal membrane with scales



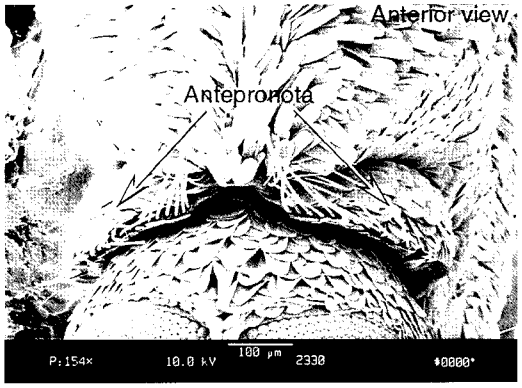
Thorax. Postprocoxal membrane without scales



to Page 102

**

Thorax. Antepronota large, widely separated middorsally

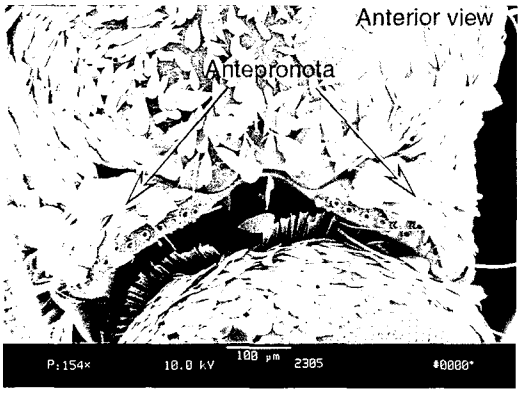


Wyeomyia (in part)

3. (continued)

Page 102

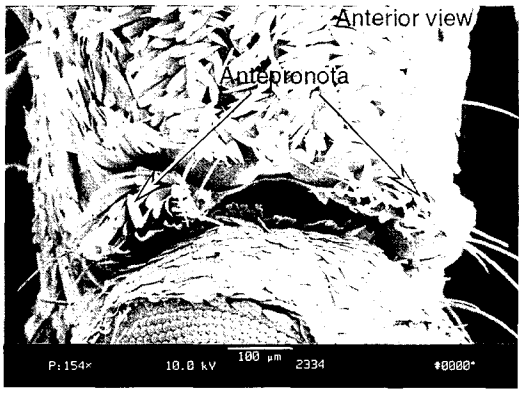
Thorax. Antepronota large, widely separated middorsally

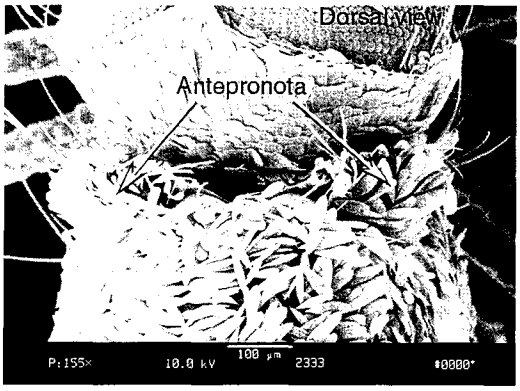


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Wyeomyia (*Davismyia*)
Wyeomyia petrocchiae

Thorax. Antepronota small, widely separated middorsally



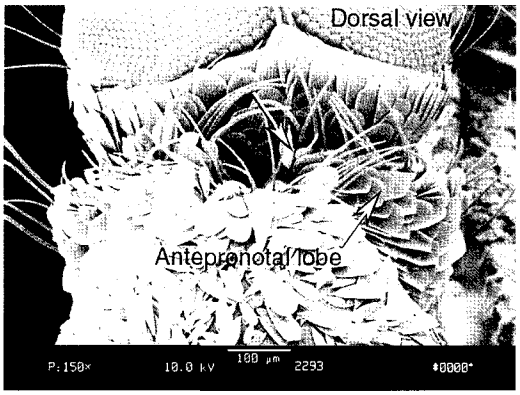


Wyeomyia (in part)

3. (continued)

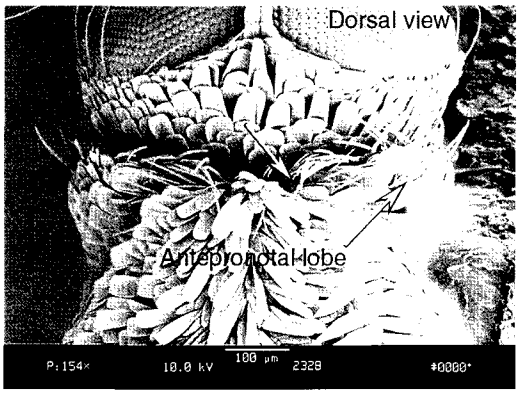
Page 103

Thorax. Antepronotal lobe with a conspicuous apicomesal angle



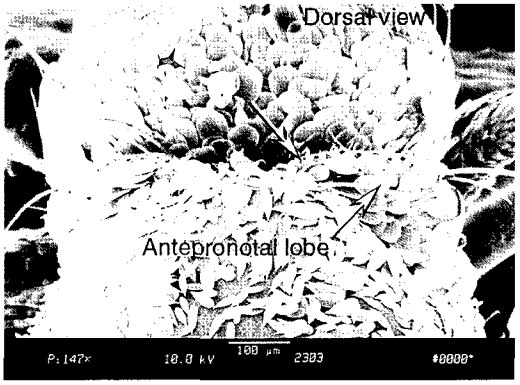
Sabethes hadrognathus

Thorax. Antepronotal lobe without a conspicuous apicomesal angle



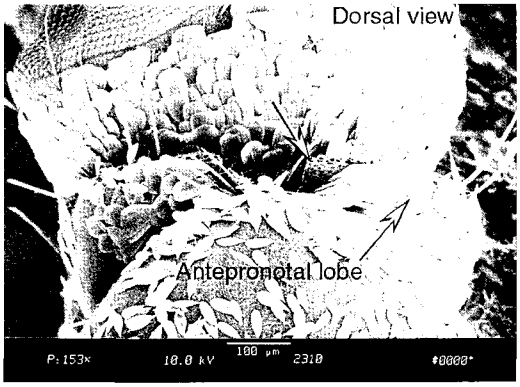
Wyeomyia arthrostigma

Thorax. Antepronotal lobe without a conspicuous apicomesal angle



Wyeomyia (*Davismyia*)
Wyeomyia petrocchiae

Thorax. Antepronotal lobe with a conspicuous apicomesal angle

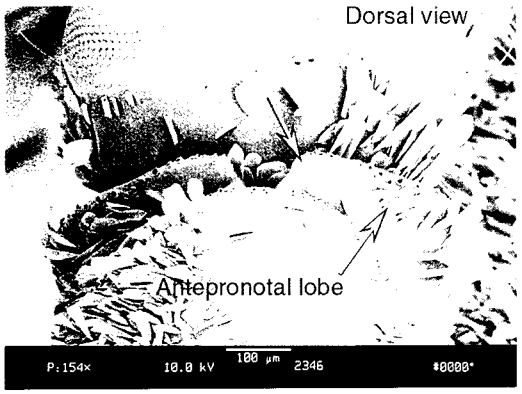


Sabethes schnusei

3. (continued)

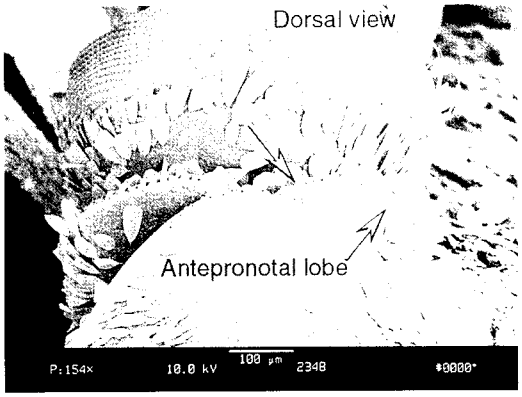
Page 104 (scales off)

Thorax. Antepronotal lobe with a conspicuous apicomesal angle



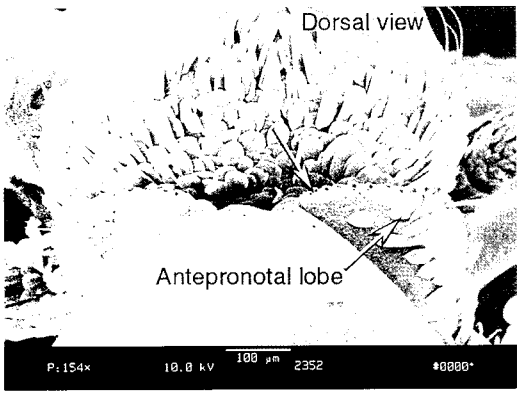
Sabethes hadrognathus

Thorax. Antepronotal lobe without a conspicuous apicomesal angle



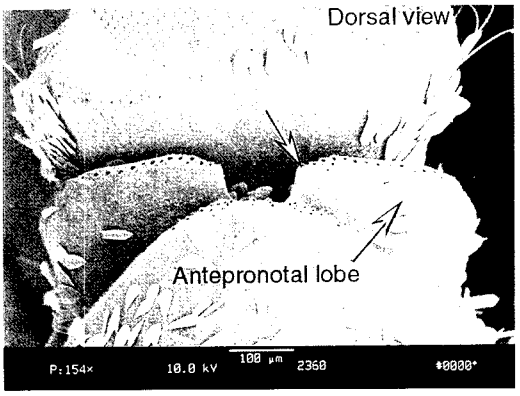
Wyeomyia arthrostigma

Thorax. Antepronotal lobe without a conspicuous apicomesal angle



Wyeomyia (*Davismyia*)
Wyeomyia petrocchiae

Thorax. Antepronotal lobe with a conspicuous apicomesal angle

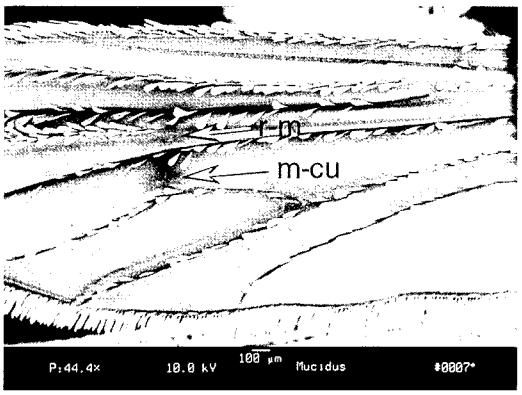


Sabethes schnusei

3. (continued)

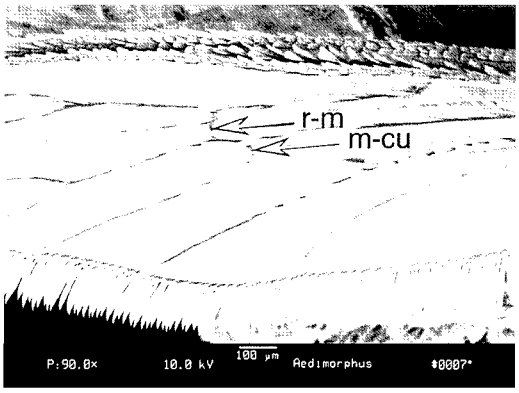
Page 105

Wing. Wing membrane clouded on crossveins r-m and m-cu

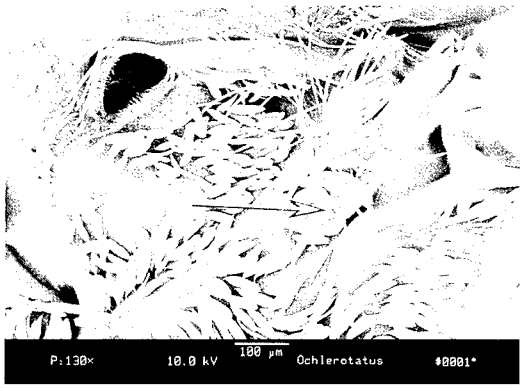


Ochlerotatus (in part)
(*Mucidus*)

Wing. Wing membrane not clouded on crossveins r-m and m-cu

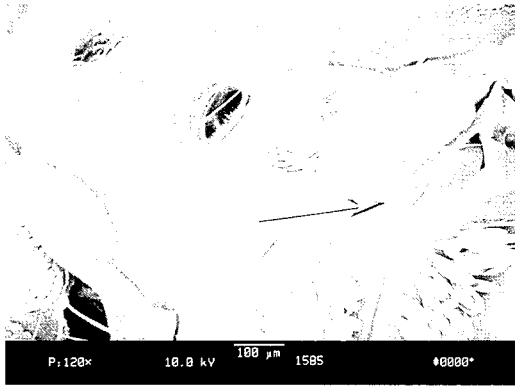


Thorax. Lower prealar scale patch present



to Page 106

Thorax. Lower prealar scale patch absent

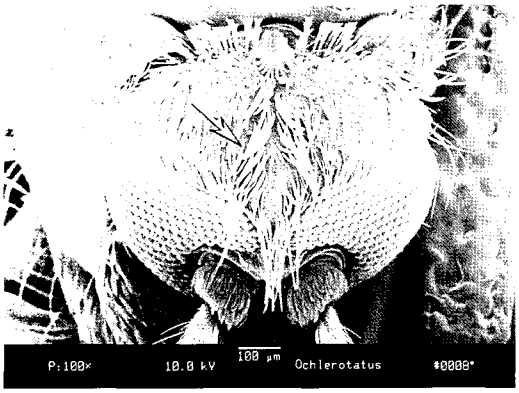


to Page 122

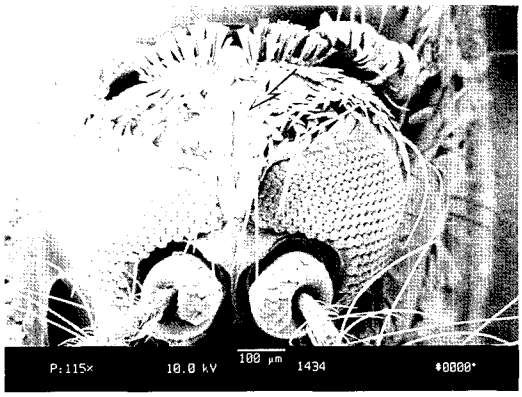
3. (continued)

Page 106

Head. Vertex with decumbent scales largely narrow

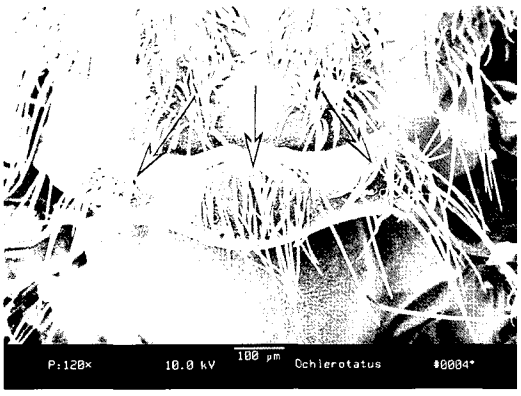


Head. Vertex with decumbent scales largely broad

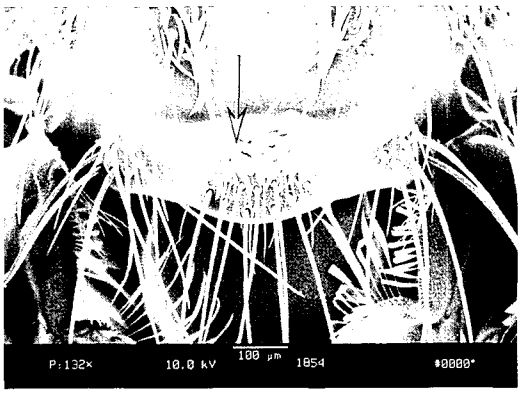


to Page 117c

Thorax. Scutellum with all narrow scales



Thorax. Scutellum with all, or at least some broad scales on midlobe



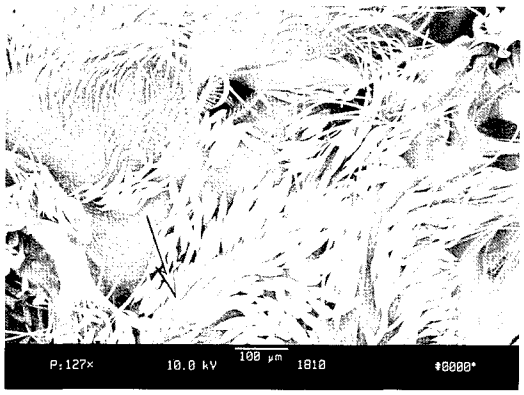
to Page 107

to Page 113b

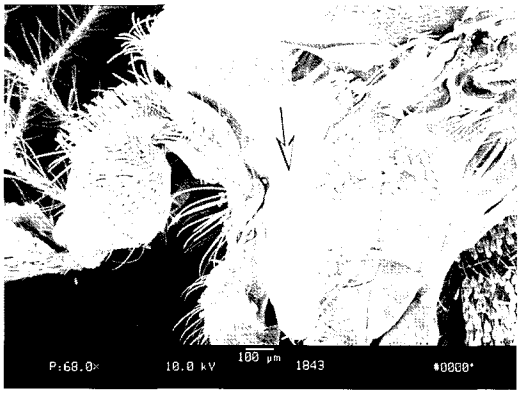
3. (continued)

Page 107

Thorax. Subspiracular area with scales



Thorax. Subspiracular area without scales



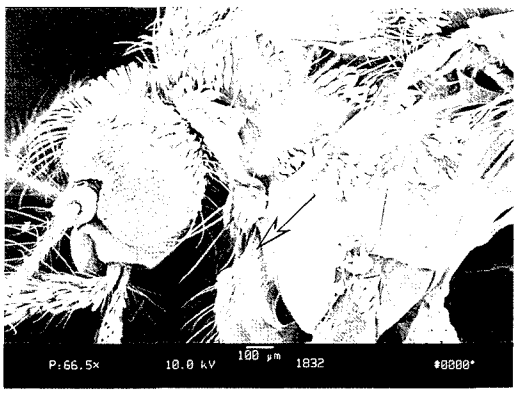
to Page 113a

Thorax. Postprocoxal membrane with scales



to Page 108

Thorax. Postprocoxal membrane without scales



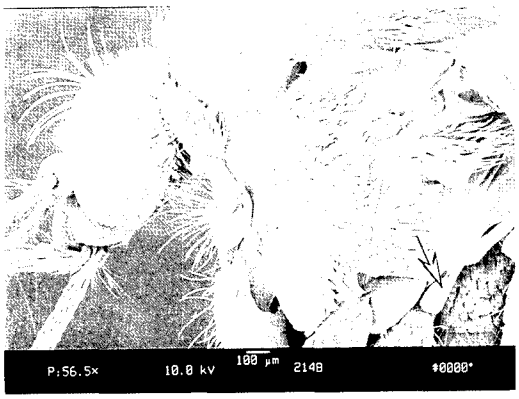
to Page 110

3. (continued)

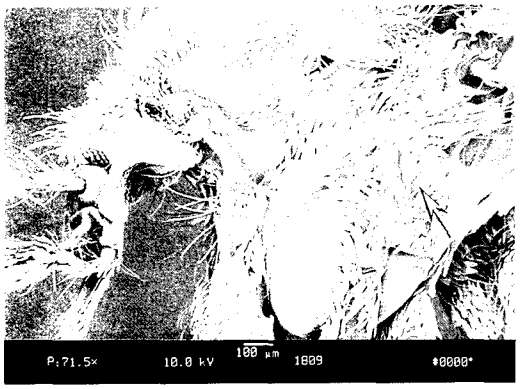
Page 108

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Thorax. Metameron with scales

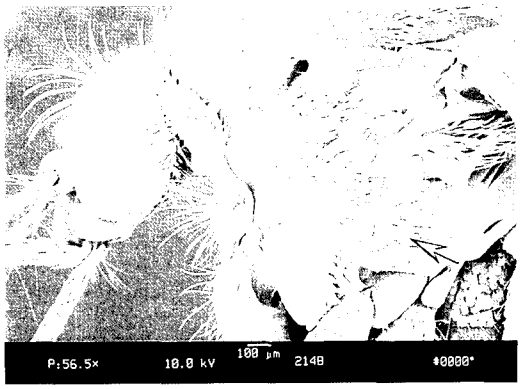


Thorax. Lower mesepimeral setae present



to Page 109a

Thorax. Lower mesepimeral setae absent

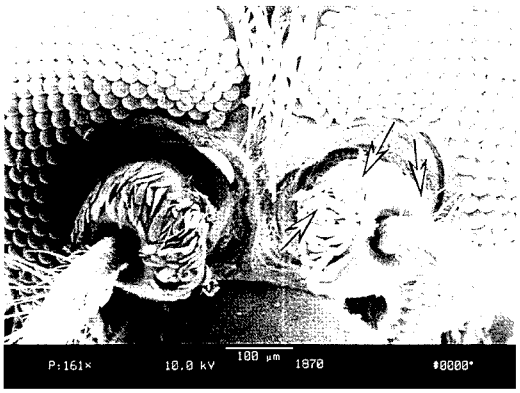


to Page 109b

3. (continued)

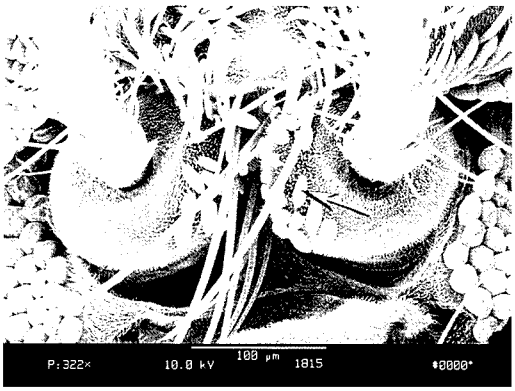
Page 109a

Head. Pedicel with few setae mixed with many scales on mesal and lateral surfaces



Ochlerotatus (in part)
(*Rusticoides*)

Head. Pedicel with white broad scales on mesal surface

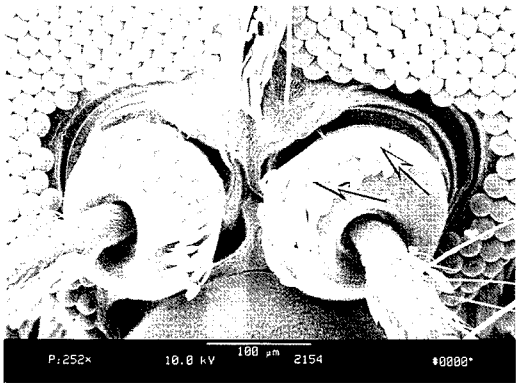


Ochlerotatus (in part)
(*Ochlerotatus*) in part

Page 109b

**

Head. Pedicel with a large patch of broad scales on mesal and dorsal surfaces



Ochlerotatus (in part)
(*Ochlerotatus*) in part

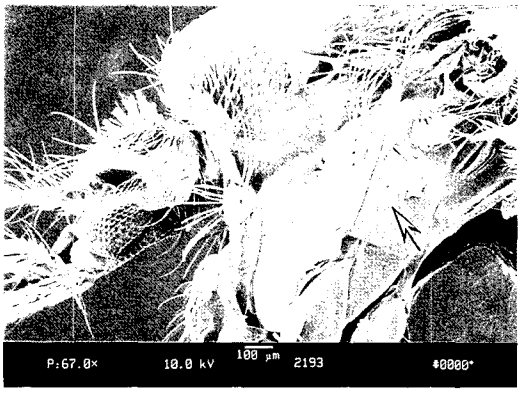
3. (continued)

Page 110

Thorax. Lower mesepimeral setae present



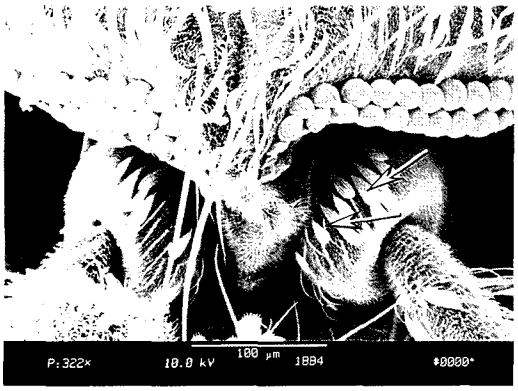
Thorax. Lower mesepimeral setae absent



to Page 111

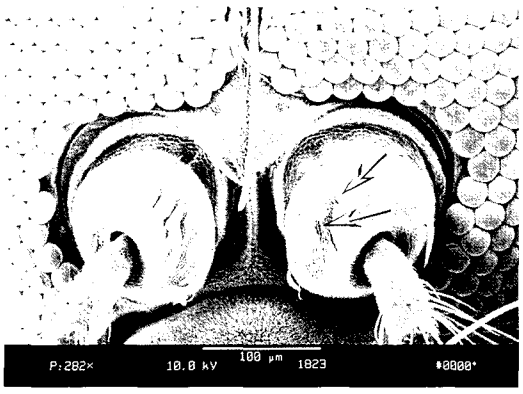
to Page 112

Head. Pedicel with long setae and small broad scales on mesal surface



Ochlerotatus (in part) (*Halaedes*)

Head. Pedicel with setae and scales on mesal surface

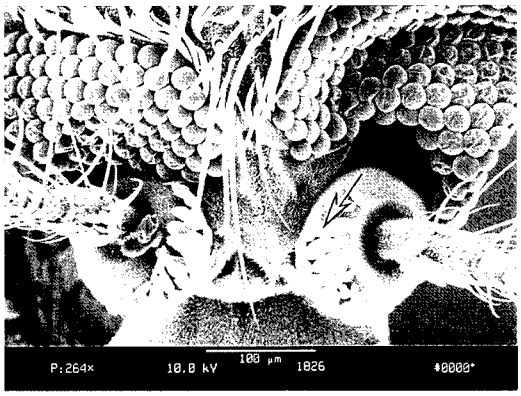


Ochlerotatus (in part) (*Ochlerotatus*) in part

3. (continued)

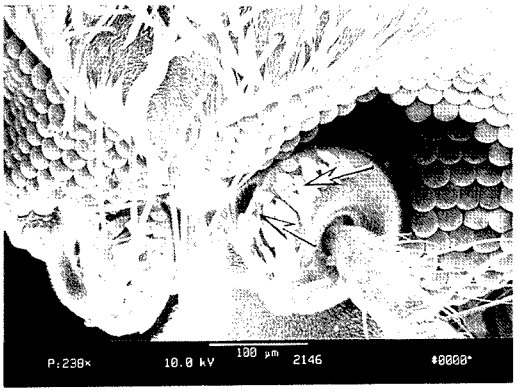
Page 111

Head. Pedicel with a large patch of white broad scales on mesal surface



Ochlerotatus (in part)
(*Finlaya*) in part

Head. Pedicel with few (2-3) setae mixed with a large patch of broad scales on mesal surface

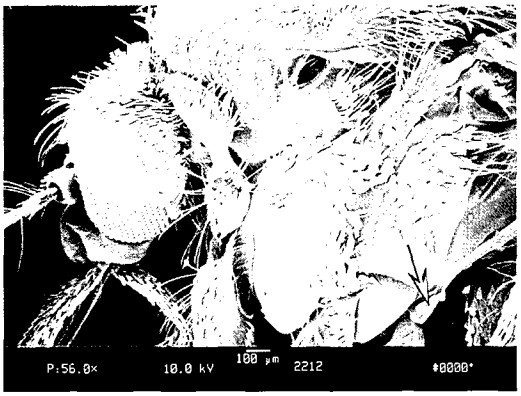


Ochlerotatus (in part)
(*Ochlerotatus*) in part

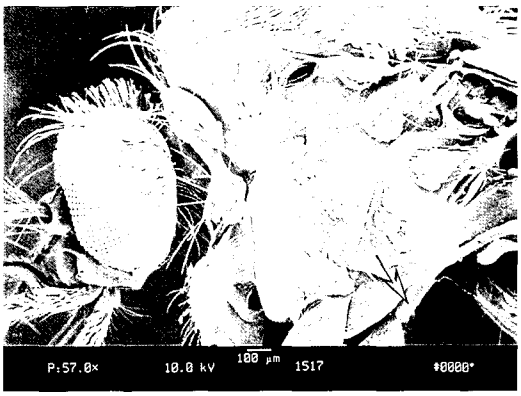
3. (continued)

Page 112

Thorax. Metameron with scales

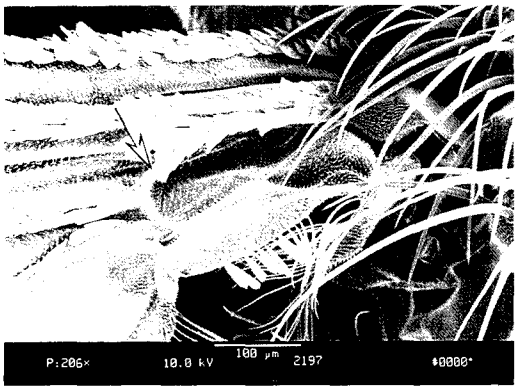


Thorax. Metameron without scales



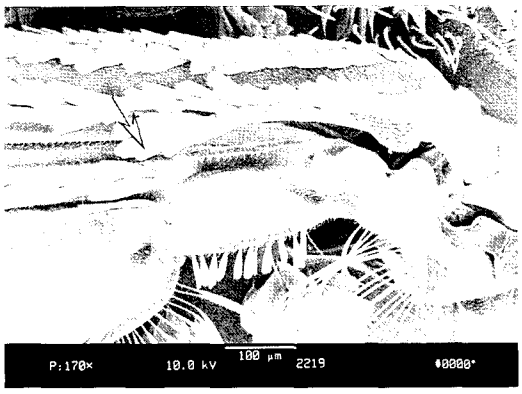
Ochlerotatus (in part)
(*Ochlerotatus*) in part

Wing. Remigial setae present



Ochlerotatus (in part)
(*Finlaya*) in part

Wing. Remigial setae absent

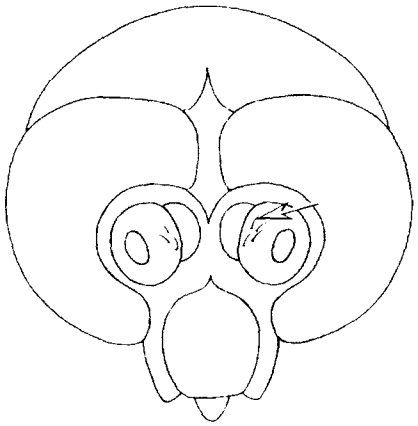


Ochlerotatus (in part)
(*Protomacleaya*) in part

3. (continued)

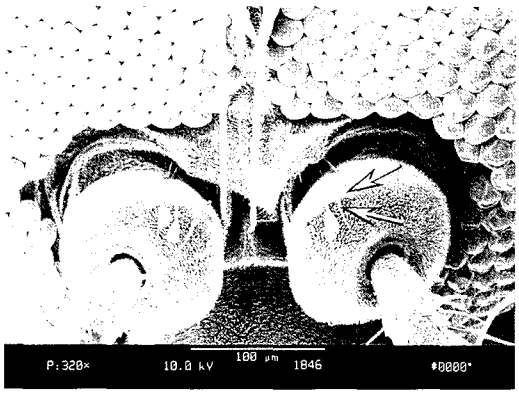
Page 113a

Head. Pedicel with few short fine setae on mesal surface



Ochlerotatus (in part)
(*Molpemyia*) in part

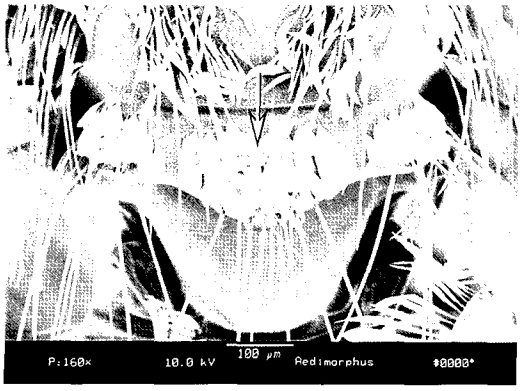
Head. Pedicel with short fine setae and small broad scales on mesal surface



Ochlerotatus (in part)
(*Ochlerotatus*) in part

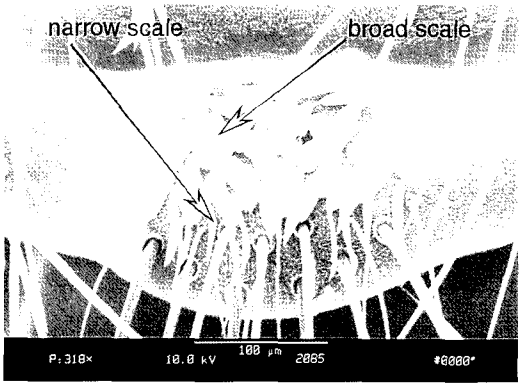
Page 113b

Thorax. Scutellum with all broad scales on midlobe



to Page 114

Thorax. Scutellum with narrow and broad scales on midlobe



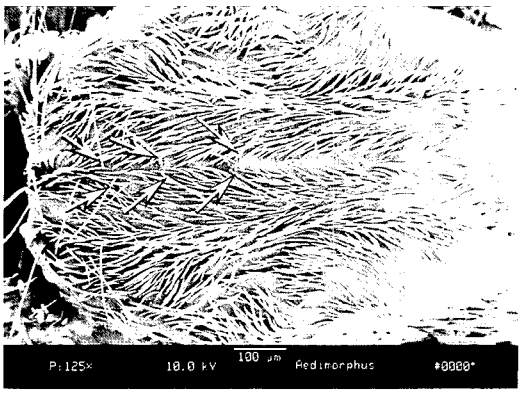
to Page 116

3. (continued)

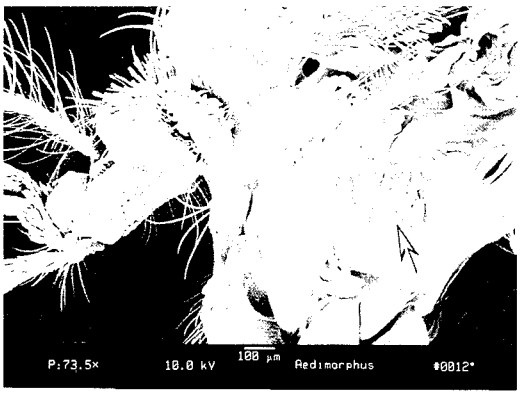
Page 114

**

Thorax. Acrostichal setae present



Thorax. Lower mesepimeral setae present



to Page 115a

Thorax. Lower mesepimeral setae absent



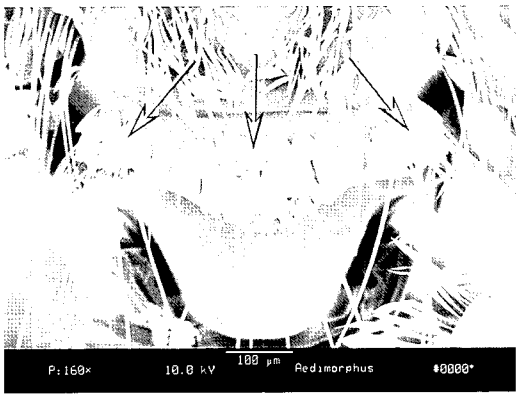
to Page 115b

3. (continued)

Page 115a

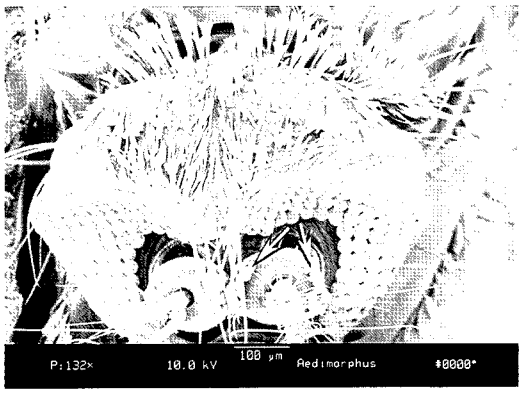
**

Thorax. Scutellum with all broad scales



**

Head. Pedicel with white broad scales on mesal and lateral surfaces

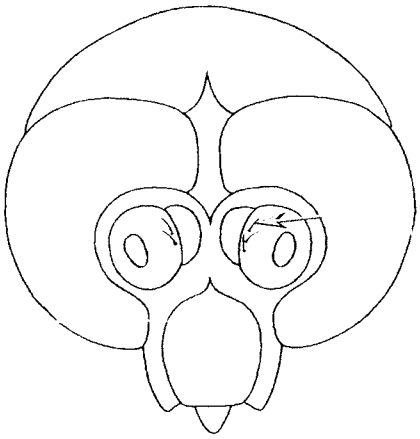


Aedes (in part)
(*Fredwardsius*) *vittatus*

Page 115b

**

Head. Pedicel with few short fine setae on mesal surface



Ochlerotatus (in part)
(*Molpemyia*) in part

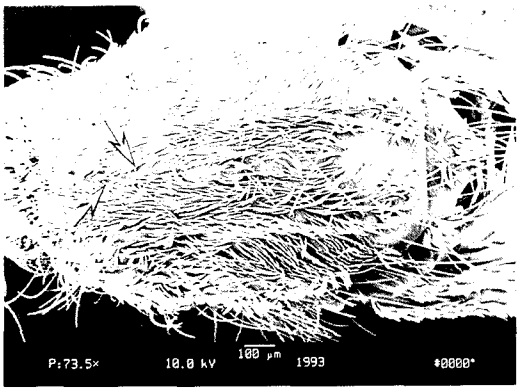
3. (continued)

Page 116

Thorax. Mesepimeron with 2 patches of scales

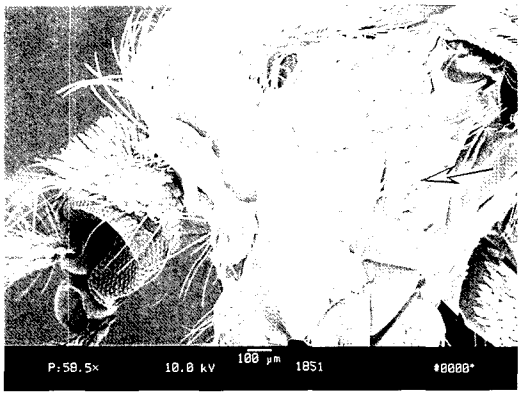


**
Thorax. Acrostichal setae present

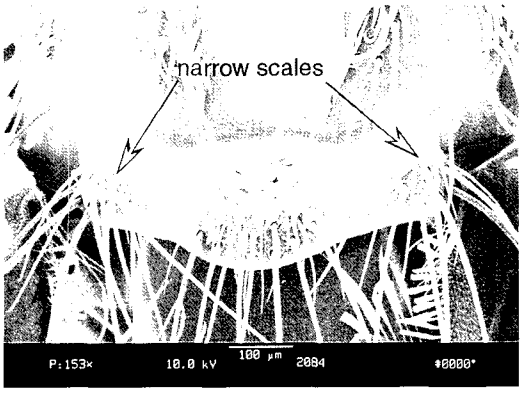


to Page 117a

Thorax. Mesepimeron with a single large patch of scales



**
Thorax. Scutellum with all narrow scales on lateral lobes

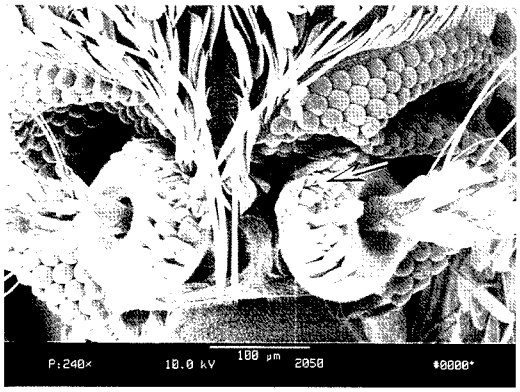


to Page 117b

3. (continued)

Page 117a

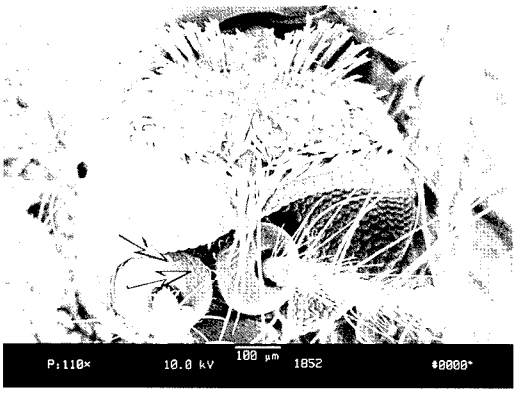
**
Head. Pedicel with a large patch of broad scales on mesal surface



Ochlerotatus (in part)
Varipalpus Group

Page 117b

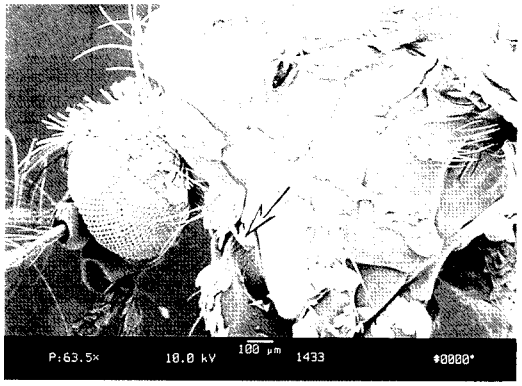
**
Head. Pedicel with setae and few (1-2) small scales on mesal surface



Ochlerotatus (in part)
(*Protomacleaya*) in part

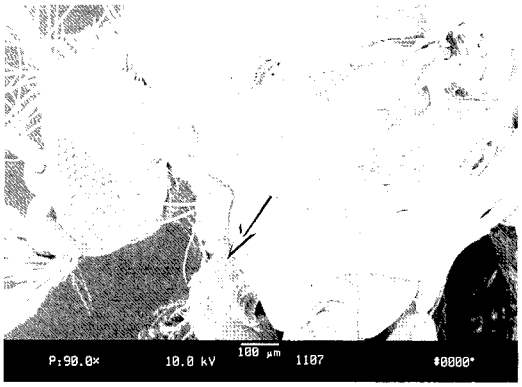
Page 117c

Thorax. Postprocoxal membrane with scales



to Page 118a

Thorax. Postprocoxal membrane without scales



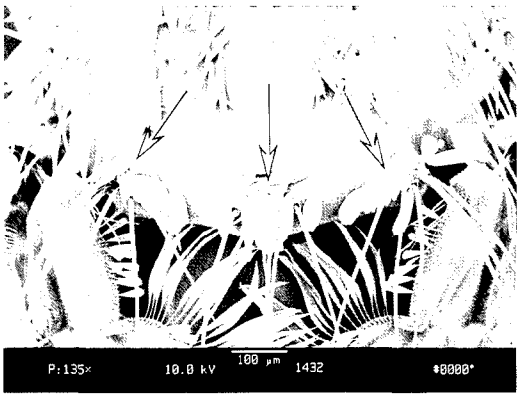
to Page 118b

3. (continued)

Page 118a

**

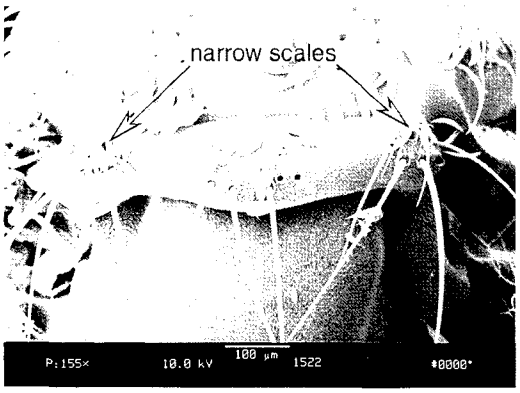
Thorax. Scutellum with all broad scales



Ochlerotatus (in part)
(*Abraedes*) *papago*

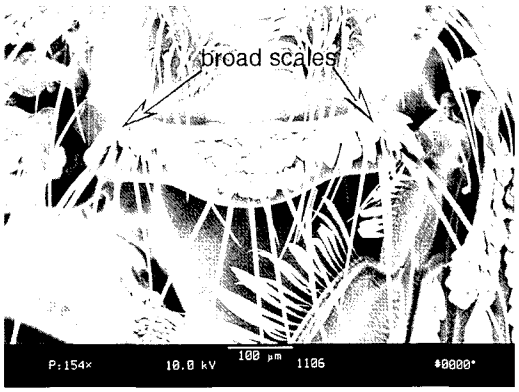
Page 118b

Thorax. Scutellum with all narrow scales on lateral lobes



to Page 119

Thorax. Scutellum with all broad scales on lateral lobes

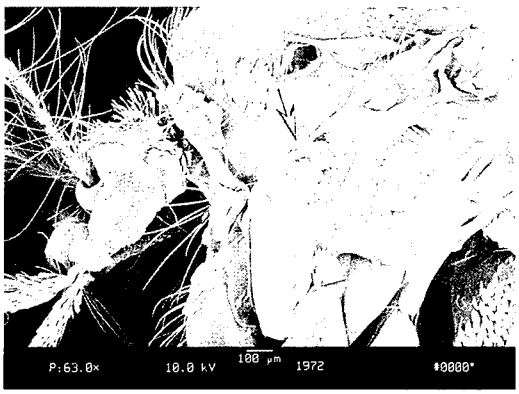


to Page 120b

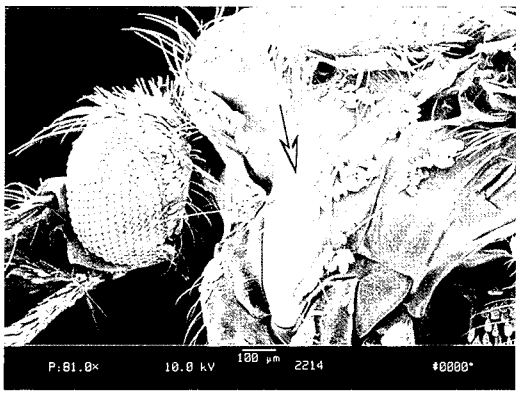
3. (continued)

Page 119

Thorax. Subspiracular area with scales

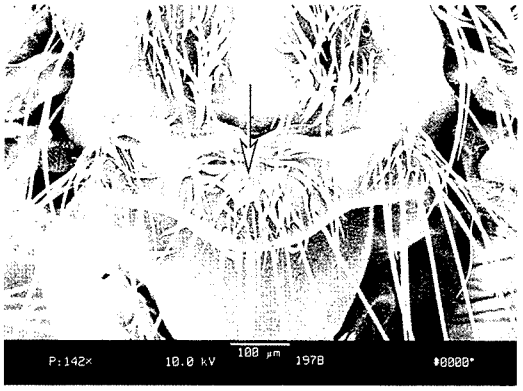


Thorax. Subspiracular area without scales



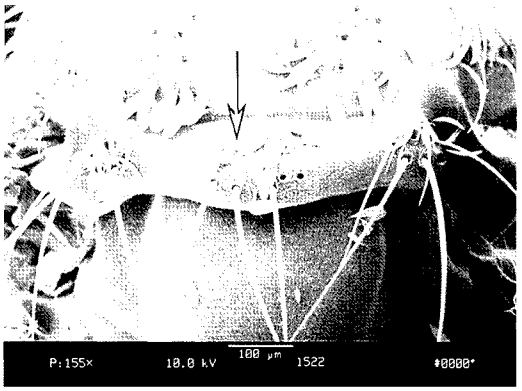
to Page 120a

Thorax. Scutellum with all narrow scales on midlobe



Ochlerotatus (in part)
(*Finlaya*) in part

Thorax. Scutellum with all broad scales on midlobe



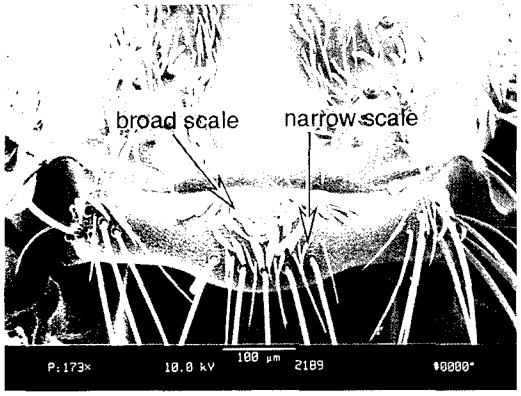
Ochlerotatus (in part)
(*Macleaya*)

3. (continued)

Page 120a

**

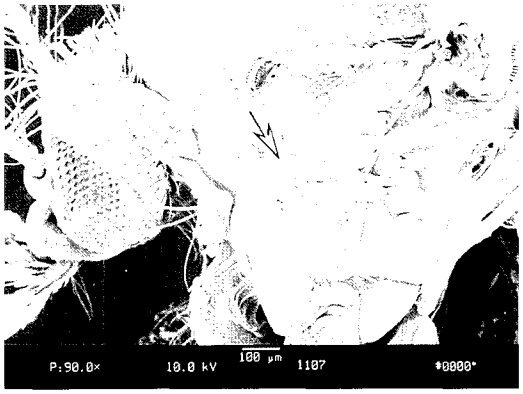
Thorax. Scutellum with narrow and broad scales on midlobe



Page 120b

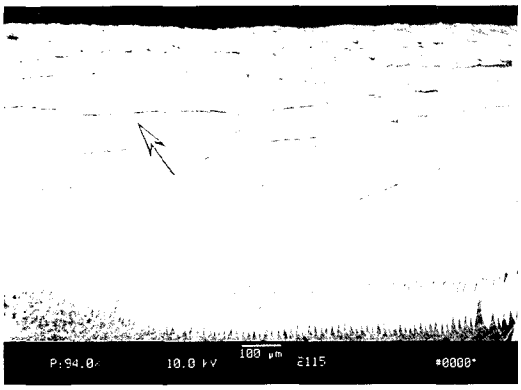
**

Thorax. Subspiracular area with scales



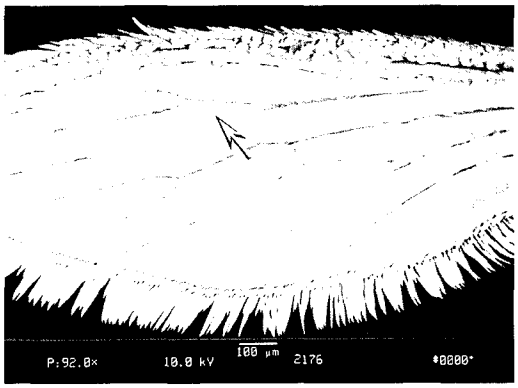
Ochlerotatus (in part)
(*Finlaya*) in part

Wing. Plume scales all broad



to Page 121a

Wing. Plume scales all narrow



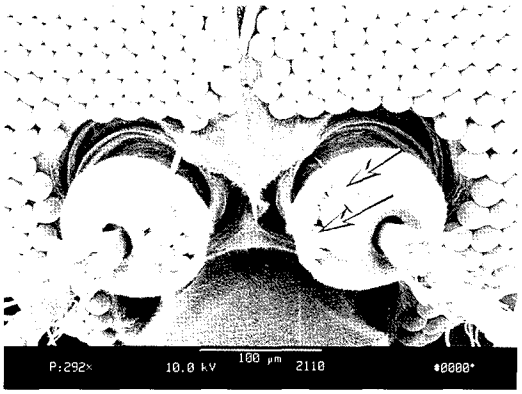
to Page 121b

3. (continued)

Page 121a

**

Head. Pedicel with a few (1-2) setae mixed with a small patch of broad scales on mesal surface

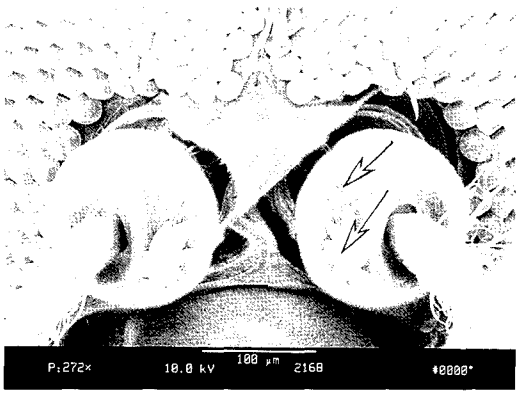


Ochlerotatus (in part)
(*Finlaya*) in part

Page 121b

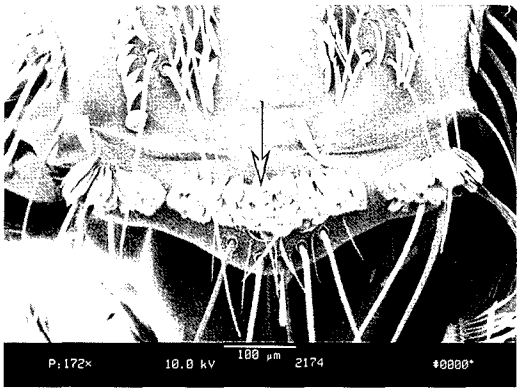
**

Head. Pedicel with a small patch of broad scales and a few (1-2) setae on mesal surface



**

Thorax. Scutellum with all broad scales on midlobe

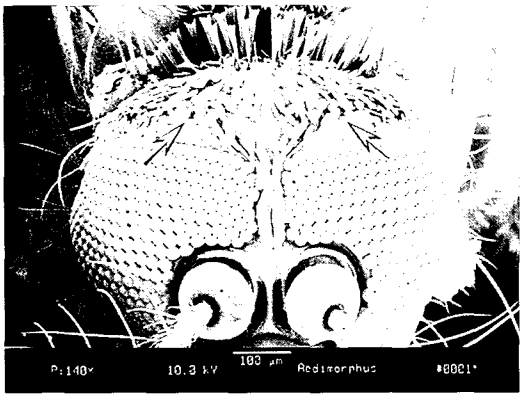


Ochlerotatus (in part)
(*Finlaya*) in part

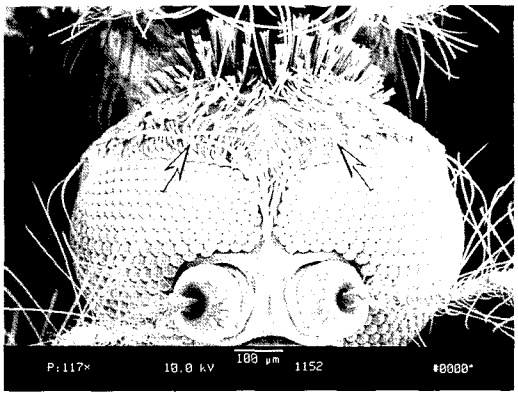
3. (continued)

Page 122

Head. Vertex with a pair of wedge-shaped patches of broad, flat scales on eye-margins



Head. Vertex without a pair of wedge-shaped patches of broad, flat scales on eye-margins



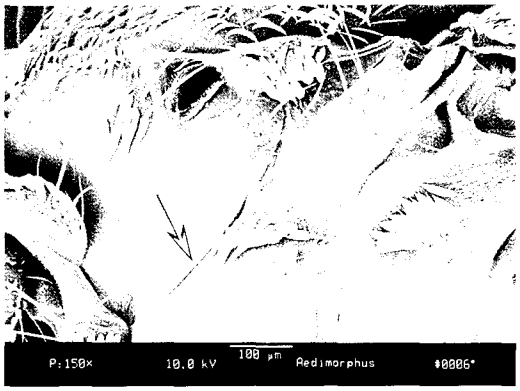
to Page 124

Thorax. Subspiracular area with scales



to Page 123a

Thorax. Subspiracular area without scales



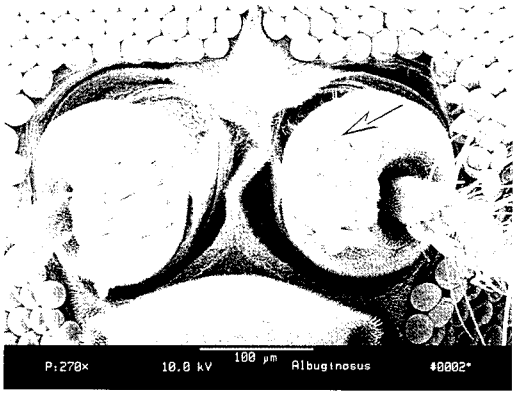
to Page 123b

3. (continued)

Page 123a

**

Head. Pedicel with a patch of white broad overlapping scales on mesal surface

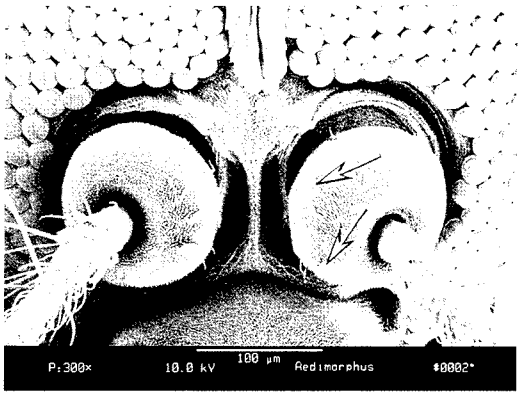


Aedes (in part)
(*Albuginosus*)

Page 123b

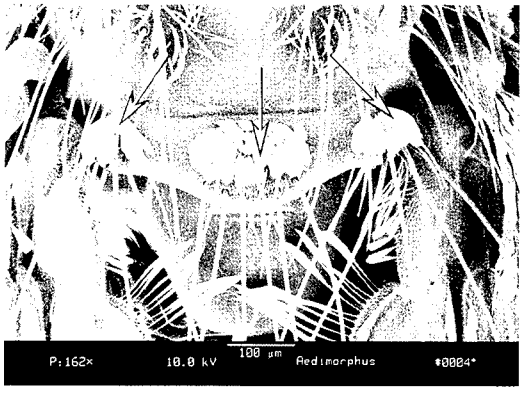
**

Head. Pedicel with a few small scales and short fine setae on mesal surface



**

Thorax. Scutellum with all broad, flat scales

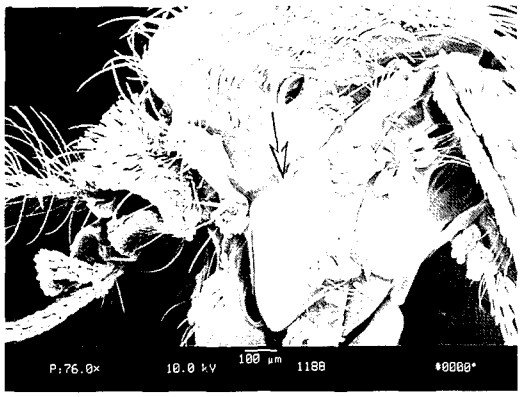


Aedes (in part)
(*Aedimorphus*) in part

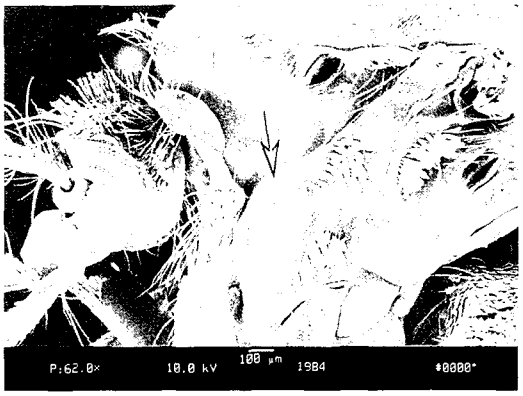
3. (continued)

Page 124

Thorax. Subspiracular area with scales

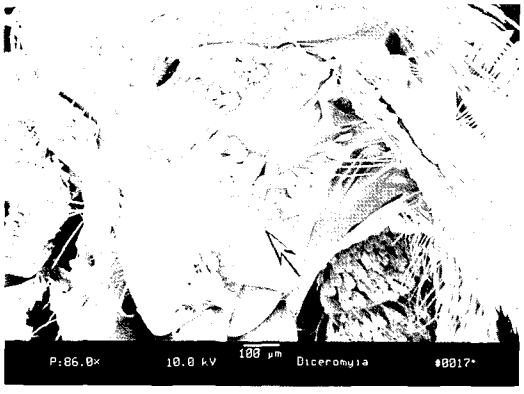


Thorax. Subspiracular area without scales

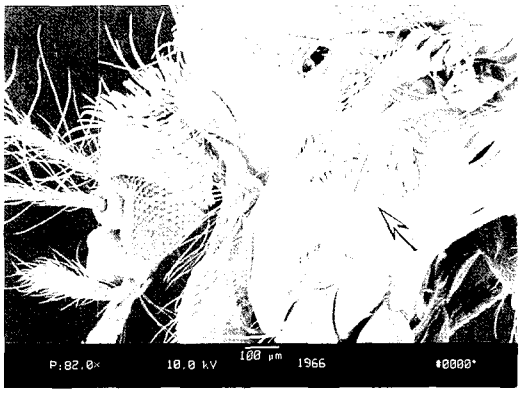


to Page 130

Thorax. Lower mesepimeral setae present



Thorax. Lower mesepimeral setae absent



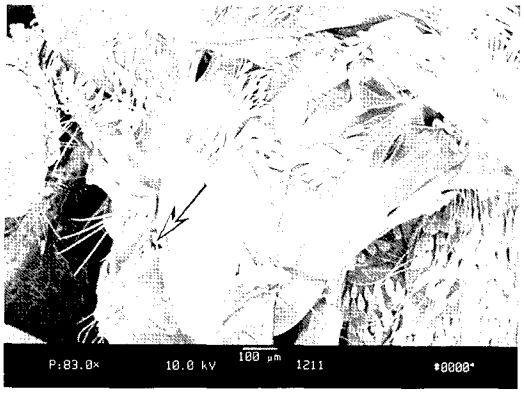
to Page 125

to Page 129b

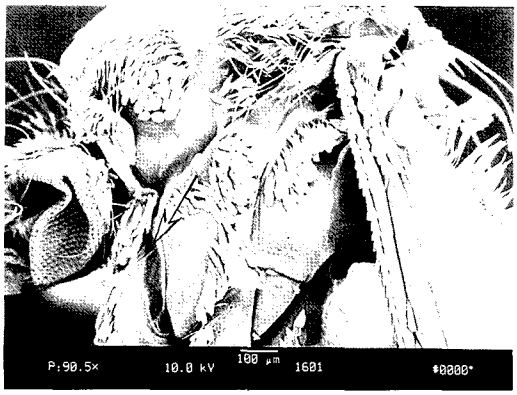
3. (continued)

Page 125

Thorax. Postprocoxal membrane with scales

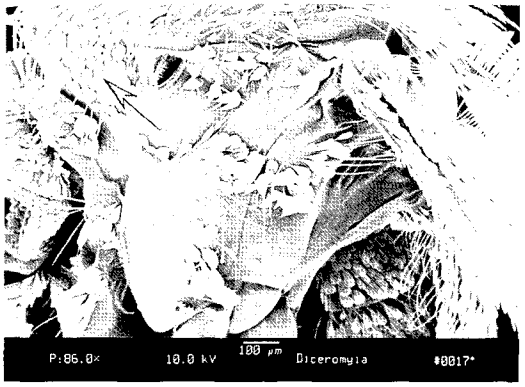


Thorax. Postprocoxal membrane without scales



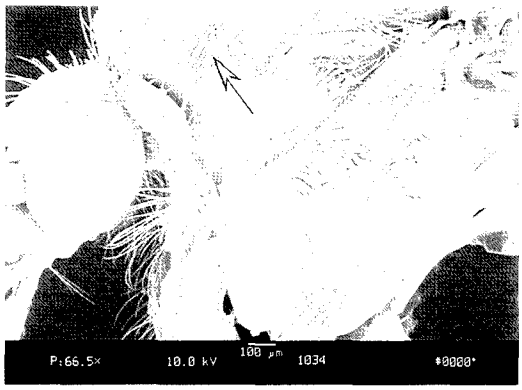
to Page 127

Thorax. Postpronotum with all, or largely broad, flat scales



to Page 126

Thorax. Postpronotum with all, or largely narrow curved scales



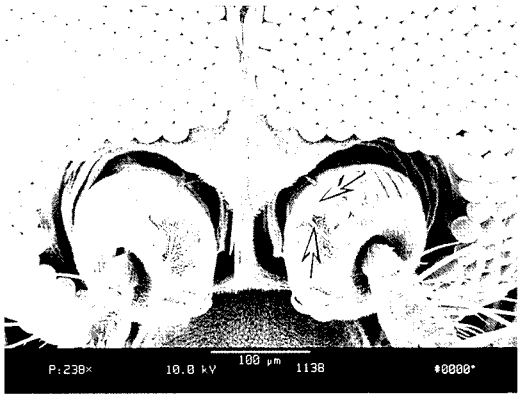
Aedes (in part)
(*Aedimorphus*) in part

3. (continued)

Page 126

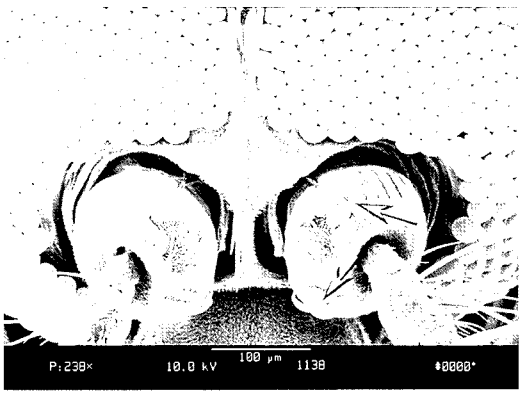
**

Head. Pedicel with setae mixed with many broad, flat scales on mesal surface



**

Head. Pedicel with 2 patches of scales on mesal surface

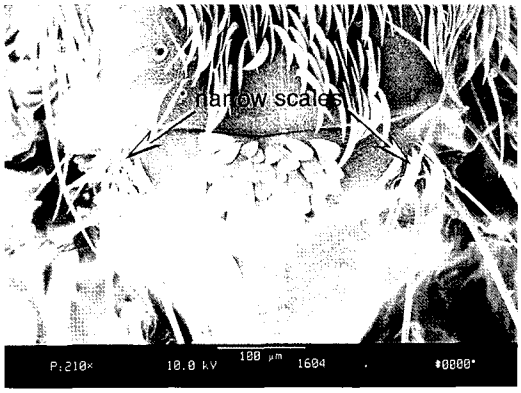


Aedes (in part)
(*Diceromyia*) in part

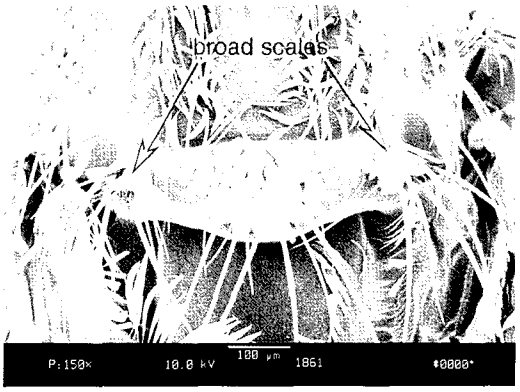
3. (continued)

Page 127

Thorax. Scutellum with all narrow scales on lateral lobes

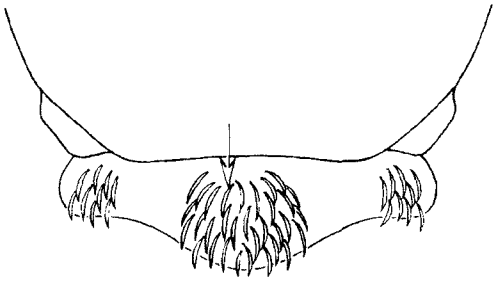


Thorax. Scutellum with all broad scales on lateral lobes



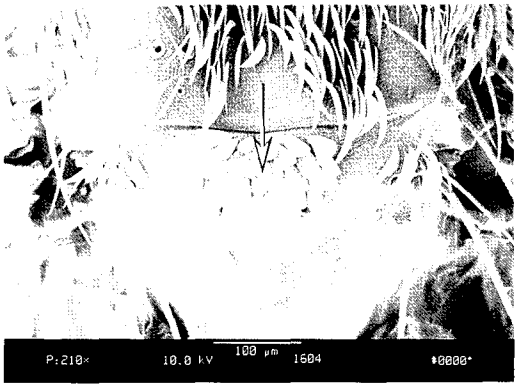
to Page 128

Thorax. Scutellum with all narrow scales on midlobe



Aedes (in part)
(*Huaedes*)

Thorax. Scutellum with all broad, flat scales on midlobe



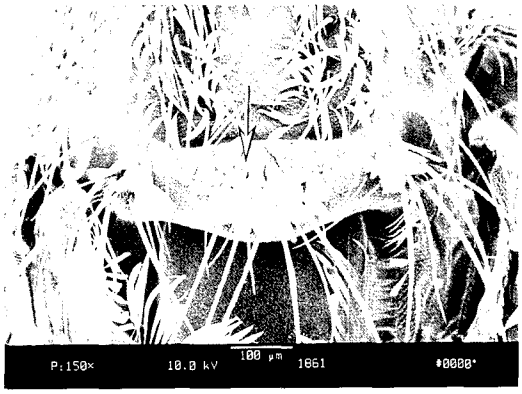
Aedes (in part)
(*Leptosomatomyia*)

3. (continued)

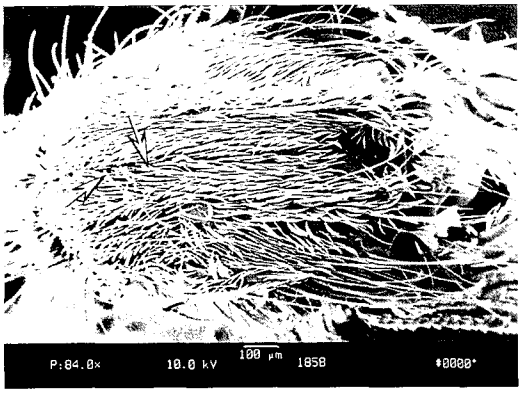
Page 128

**

Thorax. Scutellum with all broad scales on midlobe

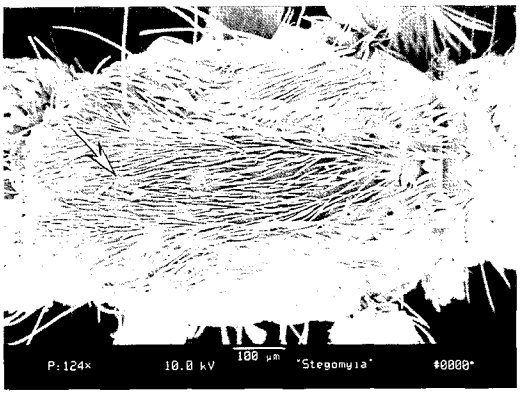


Thorax. Acrostichal setae present



Aedes (in part)
(*Diceromyia*) in part

Thorax. Acrostichal setae absent



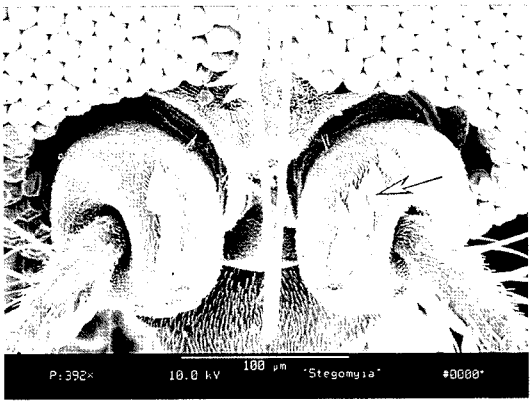
to Page 129a

3. (continued)

Page 129a

**

Head. Pedicel with a long patch of white broad, flat scales on mesal surface

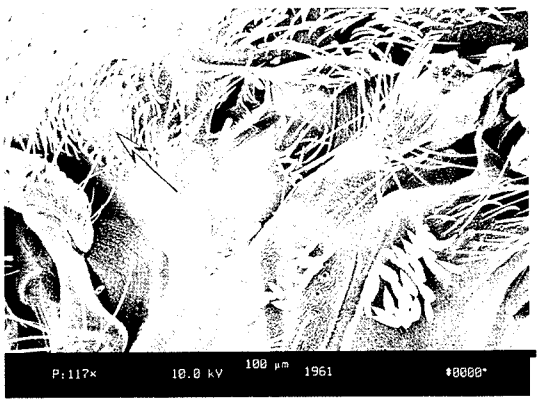


Aedes (in part)
Aedes cozi

Page 129b

**

Thorax. Postpronotum with all, or largely narrow curved scales

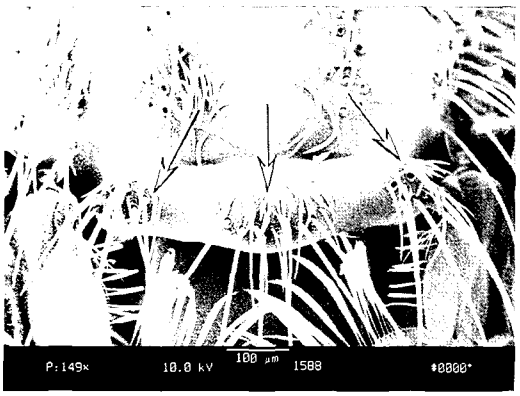


Aedes (in part)
(*Aedimorphus*) in part

3. (continued)

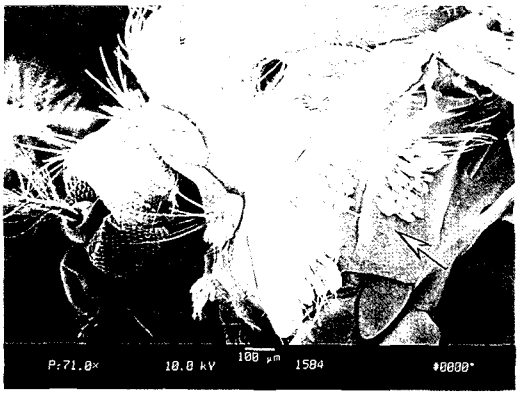
Page 130

Thorax. Scutellum with all narrow scales



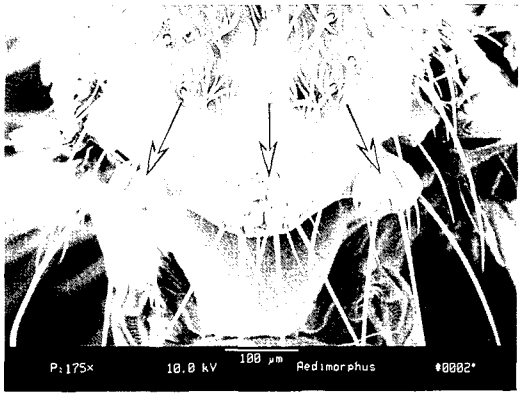
**

Thorax. Lower mesepimeral setae absent



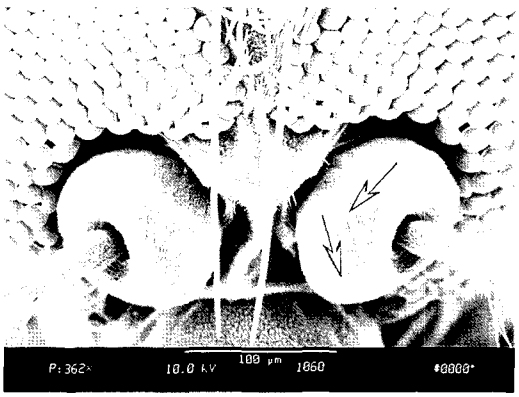
Aedes (in part)
(*Aedes*)

Thorax. Scutellum with all broad scales



**

Head. Pedicel with few setae and scales on mesal surface



Aedes (in part)
(*Aedimorphus*) in part